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ABSTRACT

These proceedings contain 36 presentations: "Vocational Guidance: Current Issues" (Marland); "Academic Excellence--Its Meaning for Hawaii's Schools" (Barney); "Educational Level or Occupational Activity and Intelligence Level" (Dupont); "The Organization and Administration of Career Guidance in the Educational Sphere in Great Britain" (Hoxter); "The Influence of Educational Reform Proposals on Vocational Guidance in American Elementary and Secondary Education" (Hoyt); "Current Issues of Vocational Guidance" (Kudo); "Vocational Guidance for Women--New York City" (Kuritzkes); "Educational Renewing Influence on Vocational and School Guidance in France" (Pellerano); "Recent Developments in the Educational System" (Rangel); "Tendencies of Education and the Employment System in the Federal Republic of Germany and the Significance for Vocational Guidance" (Zenke); "Pedagogical Technology" (Rohrs); "Vocational Orientation as an Integrate Part of the Socialist General Education in the German Democratic Republic" (Siebel); "The Fukuyama Profile Administration in Hawaii 1982, 1985 and 1986" (Barney); "The New Computer Version of the Fukuyama Profile" (Inaba); "Some Observations on Administering the Fukuyama Profile in Schools in Birmingham" (Rangel); "Implementation of the F-Test in New York City, October, 1985" (Weingart); "F-Test for Appraising the Ability to Choose Methodically among Occupations" (Zenke); "The Development of Junior High School Student Ability in Occupational Selection" (Nishida); "Vocational Guidance in the Unified Continuous Education System of the Soviet Union" (Zhiltsov); "Special Problems in Vocational Guidance Posed by Rapidly Advancing Technology" (Christ-Janer); "Relationships between Psychological Aspects and Vocational Choice during the Period 1974-1982" (Dupont); "The Impact of Technology on Occupational Change in the United States" (Hoyt); "Career Education and the Changing Structure of Work" (Inaba); "Vocational Guidance and Technology's Promise" (Kuritzkes); "New Technologies and Guidance in the Industrially Advanced Countries" (Pellerano); "Technology and Responsibility" (Rohrs); "Educational Reform in the Soviet Union and Its Impact on Vocational Guidance" (Tatur); "Experiences of the

German Democratic Republic on Special Problems of Vocational Orientation" (Siebel); "Issues Currently Facing Vocational Guidance" (Fukuyama); "Vocational Guidance and the Aging Society" (Hiroi); "Channeling the Energies of an Aging Population into a Productive and Fulfilling Old Age" (Hoxter); "Educational Reforms to Cope with the Society of Longer Life Span" (Kida); "The Role Vocational Guidance Should Play in Channeling the Energies of an Aging Population into Productive and Fulfilling Old Age" (two papers, one by Kudo and one by Rohrs); "Vocational Guidance: Serving the Aging Population" (Marland); and "Vocational Guidance Beacon for the Fulfillment of Old Age" (Weingart). (KC)

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FINAL REPORT ON 5th INTERNATIONAL CONFERENCE ON VOCATIONAL GUIDANCE

NOV. 2-4, 1986

AT ASHIYA UNIVERSITY

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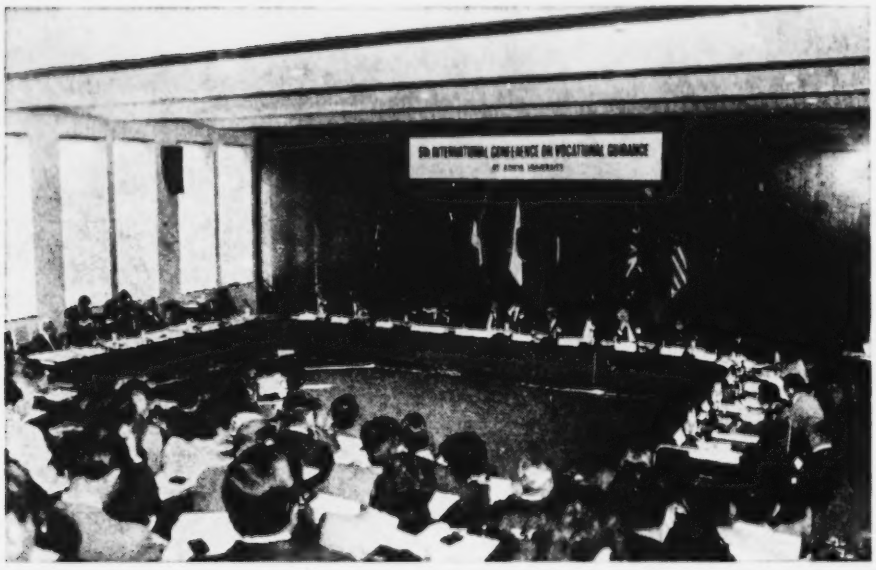

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Message from Honorable Yasuhiro Nakasone

Prime Minister of Japan

I congratulate the opening of the Fifth International Conference on Vocational Guidance, and welcome heartily the panelists of the respective countries.

It is indeed both appropriate and meaningful that various discussions will take place concerning this delicate and important issue.

Enriched by an international participation of specialists in the field, I am confident that the Conference will bear rich fruit.

Message from Honorable Masajuro Shiokawa

Minister of Education, Science and Culture of Japan

I would like to congratulate the opening of the Fifth International Conference on Vocational Guidance.

Japan is at present endeavoring to bring about educational reform, aiming at the development of youth in preparation for life in the 21st century, and at the improvement of career guidance in relation to this, for it is without doubt one of the most important aspects of such reform, particularly in junior and senior high school.

It is thus both very meaningful and appropriate that this conference with its international participation of educational specialists is again in session, intent on discussing vocational guidance.

I offer my best wishes for the success of the conference and the greater success of the individual participant through their exploration of the field.

Message from Honorable Shintaro Abe

Chairman of Executive Council
of the Liberal Democratic Party

I extend my congratulations to the International Conference on Vocational Guidance, on it's Fifth session, and praise Dr. Fukuyama for his endeavors in this regard. I pray for the continued development of this meaningful conference, and for the further success of any related activities initiated by the participants.

Message from Honorable Gennady Alekseevich Yahgodin

Minister of Higher and Secondary
Specialized Education of U.S.S.R.

УЧАСТНИКАМ У МЕЖДУНАРОДНОЙ КОНФЕРЕНЦИИ ПО ВОПРОСАМ
ПРОФЕССИОНАЛЬНОЙ ОРИЕНТАЦИИ

Сердечно приветствую участников У Международной конференции по профессиональной ориентации молодежи. Научные и практические результаты ранее состоявшихся в Японии подобных форумов ученых различных стран позволили продвинуться вперед в решении такой важной задачи как оказание помощи юношам и девушкам правильно и осознанно выбрать свой жизненный путь. Человек, его судьба, его гармоничное развитие - это в конечном счете самое главное.

Новые советские мирные инициативы, в которые вложено максимум доброй воли, открывают путь народам всех стран к реальным действиям за предотвращение ядерной катастрофы, обеспечение главного права человека - права на жизнь.

В этих условиях особое значение имеют встречи ученых, которые могут внести значительный вклад в формирование нового мышления, отвечающего целям прогресса человечества на пороге третьего тысячелетия. Мы приветствуем развитие контактов с зарубежными институтами, те формы международного сотрудничества, которые содействуют укреплению мира и дружбы между народами.

К ним, безусловно, принадлежат регулярно проводимые в университете Асия конференции по проблемам профессиональной ориентации, в ходе которых преодолевается непонимание, приобретаются знания друг друга, укрепляется доверие.

Пусть и эта встреча, проводимая в год полувекового юбилея университета, поможет упрочению взаимопонимания и сотрудничества ученых из разных стран и континентов в решении важнейших проблем современного образования.

Искренне желаю участникам конференции творческих успехов в исследовании актуальных вопросов профессиональной ориентации, укреплении дружеских, деловых контактов.

С уважением,

Министр высшего и среднего специального образования СССР Г.А.Ягодин

(English Translation from the above Russian Text)

First of all, let me congratulate all of you ladies and gentlemen for your valuable contribution to the world of vocational guidance.

A series of international symposiums held in Japan during the past decade contributed in large measure towards the solution of problems relating to young people's selection of their own way of life based on their own initiative. Initiative in job selection is essential to harmoneous development of human character.

The Soviet Union's recent peace proposal is geared to prevent a nuclear catastrophe and to allow each and every individual on the earth to take such a initiative.

Under such circumstances, it is quite meaningful for experts from various countries to get together for a face-to-face discussion. I trust that you are going to come up with innovative ideas to solve the problems of mankind towards the 21st century. The Soviet Union welcomes international cooperative endeavors of any form so long as they are designed to promote peaceful relations and friendship between the peoples of the world. The Soviet Union holds high hopes for the Fifth International Symposium on Vocational Guidance held at Ashiya University as it is a peace-oriented international endeavor to promote understanding between a variety of research organizations of the world. Through such a symposium, misunderstanding is overcome, knowledge is shared, and mutual trust is reinforced.

I am sure that you ladies and gentlemen are fully capable of and resolved to do exactly that on the occasion of this memorable symposium commemorating the 50th anniversary of the foundation of Ashiya Educational Institution.

I wish you all an overwhelming success in solving the critical problems relating to vocational guidance, wielding your innovative ideas and expertise in a peaceful and friendly atmosphere.

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Message from Honorable George R. Ariyoshi

Governor of the State of Hawaii

GEORGE R. ARIYOSHI
GOVERNOR

October 21, 1986

Dr. Shigekazu Fukuyama
President
Ashiya University
Hyogo City, Japan

Dear Dr. Fukuyama:

I extend my best wishes for a most successful and productive Fifth International Conference on Vocational Guidance.

I congratulate you for your leadership in organizing and sponsoring this biennial international gathering of representatives from many governments of the world.

While the major objective of the conference is to promote education and guidance so that all segments of our society—young and old—can achieve their potentials, the conference also affords people from diverse governments an opportunity to promote better understanding among nations and to develop more positive relationships.

It is rewarding that Hawaii's educators have been invited to participate in this conference to share our ideas and aspirations.

I also express congratulations to the founders of the Ashiya Educational Institution on the celebration of its 50th anniversary the day before the conference begins.

You, and Mrs. Fukuyama, are to be commended for the accomplishments of the Ashiya Educational Institutions over the past half century.

With warm personal regards, I remain,

Yours very truly,

George R. Ariyoshi

George R. Ariyoshi

Message from Honorable Sakae Kishi

Governor of Osaka Prefecture

I heartily congratulate you all on the opening of the Fifth International Conference on Vocational Guidance under the auspices of Ashiya University.

I am very glad to welcome you who have come all the way to Japan in order to participate in this conference as panelists. I would like to extend my good wishes to you all on behalf of the citizens of Osaka.

Twenty two years ago in 1964, Ashiya University was founded by Dr. Fukuyama, one of the authorities on vocational guidance. Since then, the university has achieved excellent results in the fields of industrial education and vocational guidance.

Among other things, research activities such as the implementation of the F-Test, originated by President Fukuyama, have been highly appreciated by educators, not only in Japan, but also overseas.

As result of such studies and activities, the First Conference was held at Ashiya University in 1978. I am pleased to see that every conference since has added something of further significance to the field of vocational guidance, and I am truly pleased to witness this, the fifth such conference.

In recent years, we have come to have a community characterized by an aging citizenry on the one hand, and, on the other, by a great turning point in the structure of industry along with rapid progress in the areas of technology and communication. As a result of these developments, values have diversified.

It is indeed timely, therefore, and very relevant, that this conference has on its agenda topics such as "Vocational Guidance and the Educational System," "The F-Test," and "Vocational Guidance and the Aging Population." I sincerely hope that the conference will be successful as a result of active discussion by the panelists representing their respective countries.

I hope that you will enjoy socializing with one another this evening and recover from jet lag as soon as possible. I also hope that you will have the opportunity to appreciate the energy of Osaka.

Finally, may I once again wish you all a successful conference, good health and good luck. Thank you very much.

Address of welcome by Dr. Shigekazu Fukuyama

Permanent Chairman of International Conference
on Vocational Guidance, President of Ashiya University

Dear panelists and ladies and gentlemen of the audience. Thank you very much for your attending this conference today, the fifth of its kind since first we opened the International Conference on Vocational Guidance eight years ago, on November 2, 1978.

During those years we have sadly lost two significant contributors to the conference, Dr. Amioka, who greatly assisted in its establishment; Professor Mitsuo Ohshima, pedagogist, who exhibited a deep understanding of vocational guidance issues, and Dr. Yelyutin (Educational Minister of the U.S.S.R.), who graciously helped establish this conference and who retired from his post last year. Also we are missing Dr. Zhiltsov, a sincere and devoted participant who compiled numerous reports on the implementation of the F-Test since the first conference. Memories associated with these individuals and events leave a strong impression on me. The noble torches of the conference set afire by those individuals, are now burning brightly.

Today, with the participation of a number of new panelists, those torches will burn brighter still. I welcome Dr. Tatur from the Higher and Secondary Education Ministry of the U.S.S.R., and Dr. Hoyt and Mrs. Kuritzkes from the U.S.A.

We are also fortunate in having with us today Mrs. Toshiko Amioka and Mrs. Keiko Ohshima. It is thus very fitting that I should like to pay my respects to both the late Dr. Amioka and Dr. Ohshima for all they have done and left for us.

Looking back at the discussions of the past four conferences, I feel strongly that vocational guidance will be a fundamental guiding force in the forthcoming century, when High-Tech will further develop and the phenomenon of an aging population be more pronounced.

In the same way that an emphasis on the humanity characterised the opening of the 20th century, we should like to see vocational guidance assuming a comparable role in the remainder of this and the next century. As such, I should like to start the discussions placing an emphasis on this theme.

I perceive in the world today a growing instability. Thus, we have a roll to play in helping to bring about a state of peace in the world. Vocational guidance is a tool through which we can make efforts to help bring about this end.

We are now in mid-fall, and it is a beautiful time of year here in Japan. I hope the colleagues from overseas will be able to enjoy it, and I ask that we all labour to make this the Fifth Conference on Vocational Guidance, a fruitful one.

AGENDA

Date	Events	Time
November 2 (Sunday)	Opening Ceremony	9:00~10:30
	Session I Presentation of the introductory speeches Discussion	10:30~12:00
	Luncheon	12:00~13:30
	Session II Discussion	13:30~15:00
	Coffee Break	15:00~15:30
	Session III Presentation of the introductory speeches Discussion	15:30~17:00
November 3 (Monday)	Session IV Presentation of the introductory speechs Discussion	9:30~12:00
	Luncheon	12:00~13:30
	Session V Presentation of the introductory speeches	13:30~15:00
	Coffee Break	15:00~15:30
	Session VI Discussion	15:30~17:00
November 4 (Tuesday)	Session VII Discussion and questions from audience	9:30~11:00
	Summarization	11:00~11:45
	Closing Ceremony	11:45~12:30

INTRODUCTORY SPEECHES

VOCATIONAL GUIDANCE : CURRENT ISSUES

by
S. P. Marland, Jr.

A long-standing dispute prevails in the American higher education system. The dispute arises from the conflict between those faculty members, and other influential forces, who cling to the sacred and exclusive boundaries of the liberal arts tradition, and those who insist that higher education should, among other things, prepare the learner for a career. The champions of the latter view include most of today's students, and certainly their parents. At annual costs of tuition, room and board ranging up to $15,000 a year in private colleges and universities (up to $8,000 in public institutions) the "buyer" is understandably interested in the economic outcomes of four years of college, as well as the "liberalizing" outcomes. This condition creates problems for high school counselors who offer vocational guidance for their students.

This writer is wholly supportive of the essential place that the liberal arts must hold in the higher education curriculum. But the issue arises from those who perceive the liberal arts as *learning for its own sake*, as distinct from *learning with a concrete vocational objective*. For those unfamiliar with the American definition of liberal arts (nearly all scholars have their own definition) this passage from a promotional brochure of one of our most distinguished and exclusive liberal arts colleges may briefly suffice:

> "_____ college believes that broad training in the arts, letters, sciences and social sciences provides its students with the most effective preparation for productive participation in modern society... The curriculum is structured to expose each student to the major areas of human experience and achievement, while simultaneously promoting self-discovery and self-expression."

It is clear from further perusal of the brochure that *vocation* is not included in this college's statement of its aims, and assuredly many faculty members throughout the United States would agree that vocation has no place in the college or university value systems, except in the post-graduate professional schools.

Notwithstanding the foregoing observations, some scholars, as well as administrators, take seriously the need to harmonize the liberal arts with genuine and realistic occupational outcomes. Some 22 years ago one of America's distinguished scholars and statesmen, John Gardner, dealt straightforwardly with the issue in his book, *Excellence*, recently updated re-published:

> "We must learn to honor excellence in every socially accepted human activity, however, humble the activity, and to scorn shoddiness, however exalted the activity. An excellent plumber is infinitely more admirable than an incompetent philosopher. The society that scorns excellence in plumbing because plumbing is a humble activity and tolerates shoddiness in philosophy because it is an exalted activity will have neither good plumbing nor good philosophy. Neither its pipes nor its theories will hold water."

(I earnestly hope that the elegant wit of this passage as well as its wisdom are not lost in translation.)

What I read in Gardner's message, as it affects this paper, is that those who view "vocationalism" in higher education as something less worthy than their particular academic product should change their views.

But the dispute, wherever it exists, between "pure" learning and career development is being resolved. True to its tradition, the American public - the consumer of educational services - is settling the issue in the market-place. During the next ten years, as our "baby boom" population which came into place following WWII reaches the post college-age years, a sharp decline in the age 18-22 cohort is now occurring. Between the present and 1994 there will be about 5 million fewer people in the college-age cohort. This means that colleges and universities, except for a small handful of highly selective institutions, are scrambling for students. They are now well aware of the forces of the market-place, namely, the insistence on the part of students and parents that colleges include vocational opportunities in their outcomes.

An informal survey of all public and private four-year colleges in my state of Connecticut reveals that in their promotional brochures addressed to potential "customers", 22 out of 25 institutions advertise the *occupationally* attractive aspects of their curricula and programs. Aggressive "marketing" of colleges throughout the U. S. is now common-including prestigious private institutions. Illustrating this sharp departure from the past, the following excerpt from a private university's 1986 brochure follows:

> "The University of _____ philosophy is 'Educating in the Real World'. That means your studies are aimed toward preparing you for moving out into the world with the skills to begin your career immediately in the field of your choice... Also the University educates for the real world through its curriculum of liberal arts studies..."

If for no other reason than survival in the face of declining enrollments, the harmonizing of the liberal arts and occupational preparation is taking place. Using Gardner's language, the first illustration of an exclusive college's *liberal* offerings is no more or no less excellent than those "real world" offerings cited in the second illustration. The high school counselor, seeking the best situation for vocational opportunities for his students, is now able to gather the facts of institutional offerings, in the context of a buyer's market.

ACADEMIC EXCELLENCE
— ITS MEANING FOR HAWAII'S SCHOOLS

by
Evangeline K. Barney

Introduction

In the United States, recent reports from business and education leaders alike have stressed that academic preparation is not only for the college bound. "Academic Preparation for the World of Work" published by the College Board -- a result of continuing dialogue between business leaders and educators throughout the country states that:

> "The message to schools is clear: work bound students whether following vocational or general education courses of study, shouldn't be taken off the academic track ... the future of the nation's economy will depend increasingly on employees who are skilled not only in the traditional basics -- reading, writing and arithmetic --- but also in the more sophisticated analytical skills of problem solving and reasoning."

In Hawaii, a Business-Education Partnership has been formally established to foster cooperative efforts between the business community and the Department of Education to enhance student achievement and economic progress of the State. The Partnership is composed of educators including the Superintendent of Education and representatives from some of Hawaii's larger business firms.

In 1985 upon reviewing the national report entitled, "High Schools and the Changing Workplace -- The Employers' View," the Business-Education Partnership conducted its own survey involving a sampling of small businesses in Hawaii. Approximately 100 small businesses were asked to give their perspectives of the basic education needed to be successful in an entry level position. Attachment A is a summary of the results of that survey.

The responses from the small businesses which were classified as retailing, manufacturing, servicing, construction and other indicated the following:

1. In the broad category of Ability and Aptitude, the oral command of the English language was given top priority followed closely by the ability to think logically, read, write and problem solve.
2. In the Personal Traits category, the top priorities were integrity, regular attendance, willingness to work, punctuality, relations with public, freedom from substance abuse and good personal hygiene in that order.

An interesting corollary to the small business survey was the administration of the same survey to 218 members of American Society of Personnel Administration (ASPA), Hawaii Chapter. The ASPA findings can be summarized as follows:

To be successful in an entry level position, the following factors have highest

priority:

A. Ability and Aptitude
   1. Oral communication
   2. Logical thinking
   3. Reading
   4. Arithmetic
   5. Spelling

B. Personal Traits
   1. Attendance - only absent when really sick
   2. Punctuality
   3. Self drive - will find work to be done
   4. Energy level - zest for work
   5. Positive relations with customers
   6. Personal discipline
   7. Positive relations with supervisors and managers

The results of both small businesses as well as the ASPA membership correlate well giving enough indication of general trends about the educational expectations from the business perspective. Prospective employers seek in potential employees, competencies in verbal and written communication *as well as* positive personality factors such as punctuality, self-drive and zest for work.

Further dialogue with Hawaii's business leaders reinforces the same notion that employers want high school products who can communicate effectively, problem solve and think logically. The business community expects from the public schools and places premium on "general education" in contrast to specialization and technical skills development for a specific occupation. As one prominent Hawaii businessman said: "We can do that. Face the reality; changes abound and we need versatility, adaptability and flexibility." What does this all mean for Hawaii's schools and Hawaii's educational programs?

Some Implications

Even though the results of the survey reflect a business point of view, the educational system cannot ignore the findings. Business is in tune with the national educational movement tightly focussing on academic excellence. In Hawaii the focus on academic excellence has prompted the following kinds of healthy actions/activities:

1. Adoption and implementation of academic requirements for students participating in co-curricular activities (athletics, student council work, performance groups and other interscholastic activities). The requirements for Hawaii's students effective September, 1986 are:
   a. Have a grade point average of 2.0; and
   b. Be passing in all courses required for graduation.
2. Study and review of the vocational education program to clearly distinguish between its educational and occupational responsibilities; and
3. Study and review of the vocational education program for possible adjustments in programming, scheduling, funding and delivery options at the high school level.

While it may appear that the push for academics has left all else out of education, that impression is not quite accurate in Hawaii. Close dialogue and com-

munication with the business sector indicates that the expectations of a high school graduate, whether from the business or education perspective, are more similar than different. In Hawaii, we appear to have a nice balance — not succumbing to the pitfall of academics are everything.

Hawaii continues to support vocational education, career exploration, development of employability skills and job skills training as well. Hawaii's system like many across the country are seeking a responsive and effective program that will:

1. address student needs and interests;
2. embrace high standards and expectations;
3. reflect current and emerging needs of the employment market;
4. address the needs of the non-traditional and special populations; and
5. teach the employability skills of work ethics, task orientation, productivity and a sense of responsibility as important dimensions of the high school program.

Toward these ends, there continues to be support for the total development of each student — and that means there is support and hope for career education, career development and vocational education.

Some Tangibles

Two (2) tangible indicators of the support for career development in Hawaii have been the re-deployment of Educational Assistants (EAs) to assist counselors in career development and the establishment of School to Work Transition Centers in eleven (11) of the 38 high schools—with other centers to be added.

Educational Assistants (EAs)

Since the Fall of 1985, all high schools have enjoyed the services of a career development educational assistant. The EA in most schools works under the direction and supervision of a counselor — assisting in the paraprofessional functions of the school counselor. In most schools, the EA assists the students in operating the Career Kokua system — Hawaii's career information retrieval system which is available both in the computerized and manual modes. This assistance has permitted the counselor to spend more time and work more closely with students in interpreting and analyzing the information students retrieve from Career Kokua. The EAs have helped to alleviate a major concern which surfaced earlier about the lack of person to person follow through in the career counseling process.

School to Work Transition Centers

Act 40 of the 1984 Hawaii State Legislature committed experimental programs in four (4) high schools into a state-wide program delivering career counseling and employment counseling and placement services in all high schools in the state. The resulting School to Work Transition Centers are a cooperative effort between the Department of Labor and Industrial Relations and the Department of Education.

The Transition Centers are staffed by a career counselor and a clerk who work very closely with the school's regular counseling staff. The primary objective of the Center is to assist students in the transition from school to

work. In addition to basic counseling, career planning and educational services are incorporated into activities in a developmental sequence beginning with self assessment and culminating in job preparation activities.

Many Transition Center staff have been using a proactive service delivery mode. This means that rather than waiting for students to come into the Center, the staff has been going out to the classrooms and students — developing career modules and making class/group presentations.

After school career workshops are held on topics such as Communicating on the Job, How to Fill Out a Job Application, Gaining Job Interview Skills and Career Shadowing. The workshops are held throughout the school year.

In one high school, through the Transition Center, a young mothers group was formed for expectant mothers. The group engaged in career self assessment activities and even worked on areas such as child abuse prevention.

One of the extra benefits of the Transition Centers is that they are open and available to students even during the summer months and after school hours. During the summer, career services are also provided to members of the general community. Summer youth employment and recruitment are also handled by the Transition Center staff.

There have been increased efforts to explore students experientially to the real world of work. Career exploration hands-on activities are becoming a major thrust of the Center's program. This type of effort would be extremely useful in those schools lacking first-hand experiences as indicated by the Fukuyama Profile.

Summary

Thus, overall, while there has been renewed attention to basic skills development for Hawaii's students, there has been no detraction from career education, vocational education or career development services to students. In Hawaii, the thrust for academic excellence is not a battle but a challenge — a challenge to ensure that students measure up to standards of performance in their quantitative and qualitative credentials as they enter the world after high school.

SURVEY OF SMALL BUSINESSES

Your business can be characterized as being mostly:

(check one)	13	Retailing	4	Construction
	4	Manufacturing	25	Other
	40	Servicing	86	TOTAL

To be successful in an entry-level position in your business, how do you rate the following traits and abilities?

A. ABILITY AND APTITUDE	MUST HAVE	SHOULD HAVE	GOOD TO HAVE	NOT NEEDED	NOT APPLICABLE
1. Manual dexterity	20	24	28	9	2
2. Physical agility	13	18	31	16	5
3. Physical strength	12	11	30	30	5
4. Mechanical aptitude	8	20	34	13	7
5. Electrical aptitude	6	8	35	24	10
6. Logical thinking (reasoning)	58	14	8	2	-

7. Command of English language	54	12	6	-	-
-Written communication	52	16	10	1	-
-Spelling	45	23	14	2	-
-Grammar	43	24	15	1	-
-Reading	56	18	9	-	-
-Writing	50	22	10	1	-
-Vocabulary	47	26	8	2	-
-Oral communication	64	15	2	-	-
8. Command of foreign language which one	-	2	25	34	20
9. Problem solving	48	28	7	-	2
10. Leadership	17	38	16	4	1
11. Specific skills:					
a. Typing	17	16	29	13	6
b. Ten-key	8	20	25	16	9
c. Computing	9	5	9	6	1
d. Word processing	7	16	33	17	7
e. Bookkeeping	11	17	28	18	7
f. Cash handling	20	12	21	19	6
g. Driver's license	35	18	20	6	5
12. Record of learning in school	19	23	30	6	4
B. PERSONAL TRAIT	MUST HAVE	SHOULD HAVE	GOOD TO HAVE	NOT NEEDED	NOT APPLICABLE
1. Positive interpersonal attributes:	36	24	4	-	-
-Relations with superiors	41	34	8	-	-
-Relations with peers	40	36	6	-	-
-Relations with public (customers, etc.)	57	18	5	-	-
2. Positive self-image	32	49	4	-	-
3. Personal discipline	50	35	1	-	-
4. Integrity	74	10	1	-	-
5. Proper dress and grooming	35	39	8	1	-
6. Attention to detail	48	35	3	-	-
7. Regularity of attendance	69	16	1	-	-
8. Punctuality	58	20	6	-	-
9. Attention span-e. g., over 30 minutes	44	28	11	-	-
10. Self-drive-e. g., constant supervision not needed	41	39	6	-	-
11. Aspiration to higher level	23	37	21	2	1
12. Record of extracurricular activities in school	4	19	40	16	3
13. Record of conduct in school	8	25	31	12	4
14. Energy level-zest for work	42	33	9	-	-
15. Willingness to work	63	19	4	-	-
16. Work is higher priority than socializing	45	31	9	-	1
17. Freedom from substance abuse	57	16	8	-	2
18. Personal hygiene	56	25	4	-	-

EDUCATIONAL LEVEL OR OCCUPATIONAL ACTIVITY AND INTELLIGENCE LEVEL

by

J. B. Dupont

Psychologists have been doing large-scale testing of populations for over half a century now. To my knowledge, these tests were first administered in the military context. During the First World War, the American army used batteries of mental tests called "Army alpha" and "Army Beta". These tests were given to soldiers as a means of selecting future officers and specialists needed in the different sections of the army. The American army repeated this procedure during the Second World War for practically the same purpose. At about the same period, other countries under various political regimes followed suit. Among these were France, England and Germany.

How can this testing be of interest to vocational guidance? Some test results have been published. Among them there are a number of studies on the relation between performance on psychological tests and the occupational status (or educational background) of the soldiers. The studies provide a means of establishing a hierarchy of occupations according to the mental level observed. Whatever one's ideology, such hierarchies warrant one's attention, especially as the results obtained by the military have been supplemented by vast civilian surveys. Flanagan's monumental study, "Project Talent", is one. The objective of this study was to detect talents among American youth. Other studies can also be mentioned, notably two American studies based on DAT batteries (Bennett et al.) and GATB (Dvorak).

The broader studies(Flanagan)include occupational profiles (aptitudes, interests, even temperament), whereas the more limited ones establish occupational hierarchies on the basis of a single instrument. In every case, however, the measurements were taken at a specific moment in time; given the fact that technologies change and trades evolve, no scheme can be definitive. In my opinion, new measurements should be taken regularly and compared with the old ones in order to assess the evolution of the various occupations and the place of the new ones.

It was in view of these considerations that I accepted to participate in a nation-wide project in Switzerland. (1)

In the course of my talk, I shall try to answer the following questions:

1. What situation and what population were being surveyed?
2. What instrument was used?
3. What were the results?

(1) In collaboration with R. Girod, Professor of Sociology at the University of Geneva and with B. Muller and P. A. Bersier, research assistants at the University of Lausanne.

Situation and Population

Each year a nation-wide pedagogical test is administered to the new recruits in the Swiss army. It is designed to inform the political authorities and the government about the attitudes and abilities of the recruits. It is used neither for selection nor for orientation. The recruits remain anonymous and can thus express themselves freely (and even sabotage the survey, although this happens only in a few rare cases). The survey tests all the recruits, that is, the entire male population of twenty-year-olds called up for military service; only conscientious objectors and the physically and mentally handicapped are exempted. The population surveyed in 1984 totalled 35,000 men. The test is administered by specially trained secondary school teachers. In 1984 a psychological test was given in addition to the classical pedagogical tests.

The Psychological Test

The instrument we used is a test of non-verbal intelligence, applicable to all subjects in the same form regardless of the native language of the respondents. The inventory consists of designs and geometric figures(2) called the B 53 test, it contains sixty series of the same type. Each series is comprised of three figures the sequence of which follows certain "rules" that the respondent must discover before indicating which of six possible answers is the only correct one, that is, the one that continues the series because it fits the rule. Thus, for example, if the first figure is a circle, the second figure is made up of two circles identical to the first, and the third figure is made up of three circles also identical to the first, the "rule" is to add a circle. The test obviously includes other types of "rules" (subtraction of elements, rotation, displacement...). The easier series make use of a single "rule", whereas the more difficult series are characterized by a complexity that is largely a function of the number of "rules" applied simultaneously.

According to the test's author, R. Bonnardel, the test mesures one aspect of "intellectual potential"; this potential corresponds roughly to the concept of intelligence factor g evoked by English authors (Spearman, Vernon, Cattell) or to the reasoning factors referred to by American authors (Thurstone and Guilford's first approach).

Although we measured only a single aspect of the intellectual potential, it is nonetheless an important one. Experience has shown, however, that the test is slightly easier for individuals who work at scientific, technical and technical-practical occupations than for those who work in other areas. Finally, it should be noted that the notion of "intellectual potential" does not correspond to Wechsler's definition of intelligence or to the I. Q. (intelligence quotient) ratings. Rather, it is a limited measurement in the sole field of logical intelligence.

The Results

A. The internal analysis of the test and different statistical controls show that the recruits, as anonymous respondents, replied in a serious manner. The results obtained are therefore quite reliable.

B. After having effected certain regroupings in order to have sufficient numbers in all groups, we drew up a list of eighty-nine(89) categories, each one corresponding

(2) See the examples in Appendix A.

to a specific educational or occupational status. For each category we calculated the average score and the standard deviation in T scores(3). We then ranked the categories according to the averages, from lowest to highest. This gives us a hierarchical listing of the statuses. (See Appendix B).

I would like to comment upon just a few of the numerous findings and remarks suggested by this list.

1. All the categories fall within a range of about two standard deviations, that is, between forty (40) and sixty (60). The categories at the beginning of the hierarchy appear to be slighty more heterogeneous than the categories at the high end of the scale. Moreover, there are several occupations which train by apprenticeship - mechanics in electronics and fitters in electronics and telecommunications —that come at the high end of the hierarchy; this means that they are on a par with students enrolled in the science departments at the universities and polytechnic institutes.

2. An over-all exploratory reading of the list suggests that there exists in Switzerland a ranking of the occupations which resembles that to be found elsewhere. "Manual" trades in construction and building, outdoor occupations, small shopkeeping and even occupations in the food industry tend to be grouped in the lower levels of the hierarchy; occupations in metallurgy and mechanics come at the itermediate levels, along with various categories of "white collar" workers; the high end is reserved for representatives of the "technical professions" (drafters, laboratory assistants), double-barrelled occupations (mechanic-electrician, for example), professions in electronics (as well as different categories of students).

3. If we consider more particularly the area of metallurgy and machine construction (21 occupations; see Appendix C.), we can distinguish among four levels:

- tinplate making, auto body work, ironwork (locksmithing), and certain type of mechanics (bicycle and motorcycle; farm equipment);
- mechanics (except machines) and electricity (including automotive applications);
- mechanics (machines); radio and TV electricity, the profession of mechanic-electrician;
- professions in electronics.

4. If we consider more particularly the statuses of upper level education, we notice that, as could be expected, education and professions in the area of science and technology come slightly higher than education and professions in the humanities, law, economics, etc.

C. In parallel to this procedure, we compared the hierarchy obtained from the B 53 test with another Swiss hierarchy. This other hierarchy corresponds to a ranking of the occupations by experts. It was established according to the intellectual level deemed necessary for working in the occupations. (See Appendix D.). Analysis of the results reveals that the two hierarchies are similar; in spite of the limited nature of the "logical" intelligence measured by the B 53 test, the test leads to a global average ranking comparable to that drawn up by the experts.

(3) With an average of fifty (50) and a standard deviation of ten (10).

D. Lastly, we compared the hierarchy obtained from the B 53 test to the hierarchy derived from the celebrated "Progressive Matrices" (PM 38). In this early survey (1949), Vernon administered to groups in the British navy the same type of test as the B 53. On the basis of the information furnished by Vernon, we sought out among our own population the occupations that seemed to correspond approximately to the British categories. (See Appendix E.). In spite of differences due to the populations, the structure of the professions and the time gap, there remains a certain correlation between the two hierarchies:

- The Swiss occupations that are comparable to the lowest British categories (1-4) fall considerably below the Swiss occupations corresponding to the highest British categories (9-11);

- both hierarchies attribute the same average rank (often observed elsewhere) for several categories : in ascending order, building, wood working, mechanics, electricity (the best);

- there are also observable differences. In the British hierarchy, the "white collars" have a higher global rank than the "blue collars"; in Switzerland the opposite is true. The Swiss situation seems appropriate to the extent that in both instances the representatives of the technical occupations did better on the test than members of the commercial and administrative occupations.

Concluding Remarks

In conclusion, I hope that by presenting some of the findings obtained from a population-scale survey, I have been able to draw your attention to sets of findings that may be useful to specialists in occupational guidance. It goes without saying that the examples briefly cited here are not directly applicable in any concrete fashion on the terrain, even in Switzerland, to say nothing of elsewhere, in Japan, the United States, France, Germany, Great Britain, the Soviet Union or Hawaii. (Have I forgotten anyone?). Moreover, such was not my objective. Very simply, it seems to me that these findings have the potential of stimulating reflection and of providing a few markers in the system of employment that we are always obliged to refer to. I imagine that you share my view. I am delighted if it's the case. Thank you for your attention.

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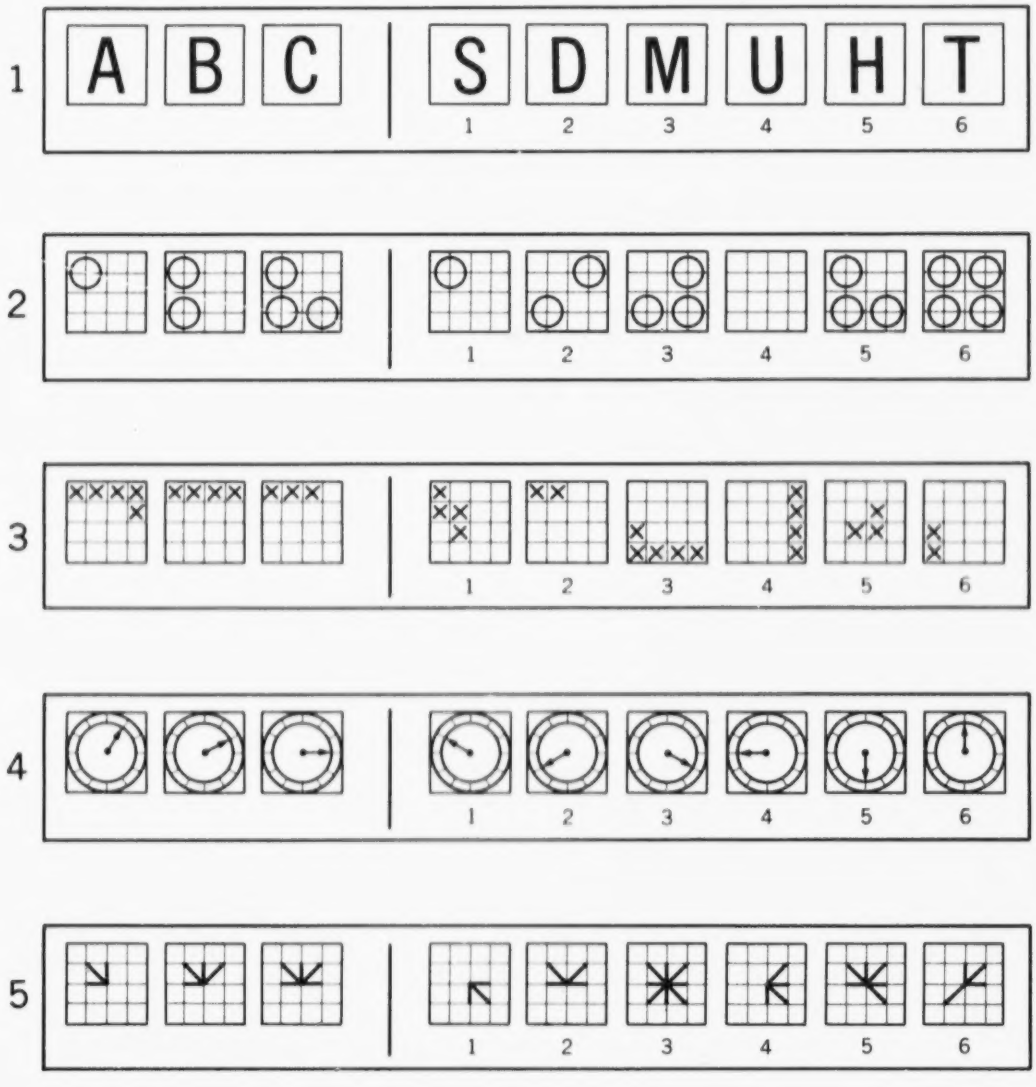
APPENDIX A
THE B 53 TEST : EXAMPLES

N°	SERIES	CHOICES



APPENDIX B

HIERARCHICAL LIST OF STATUSES RANKED ACCORDING TO PERFORMANCE ON B 53 (T SCORES)

OCCUPATIONS	NUMBER	AVERAGE SCORE	STANDARD DEVIATION
ROOFER	71	41.69	11.42
ALL-ROUND BUTCHER	315	42.57	9.25
FLOOR LAYER	53	42.87	10.43
SERVICE STATION ATTENDANT	106	42.98	9.60
MACHINISTE	52	43.15	9.27
PAINTER, AUTOMOTIVE	173	43.66	8.08
PAINTER, HOUSE	401	43.88	9.41
SPECIALIST, BUILDING ROADS	43	43.93	7.44
TILER	68	44.40	8.74
EMPLOYEE, RAILROAD MAINTENANCE, ETC.	166	44.42	9.87
CHIMNEY SWEEP	60	44.52	9.50
TRUCK DRIVER, HEAVY	279	44.52	8.89
FARMER-BREEDER	1642	44.92	9.74
MASON	743	44.97	9.72
FORESTER-WOODCUTTER	184	45.28	9.69
CHEESEMAKER	167	45.42	9.46
FITTER, FURNACES	183	45.56	8.20
PLUMBING INSTALLER	354	45.58	9.22
SALES PERSON	450	45.84	9.24
HAIR STYLIST	44	45.98	9.85
WINE WAITER	94	46.09	9.47
OFFICE HELPER	103	46.27	8.21
PLASTERER	71	46.34	10.47
POSTAL EMPLOYEE (IN UNIFORM)	374	46.39	8.73
TINSMITH	169	46.46	8.72
CARPENTER	479	46.56	9.02
BICYCLE + MOTORCYCLE REPAIRER	87	46.71	8.97
COOK	823	46.76	9.27
AUTO-BODY REPAIRER	230	47.00	8.81
GRAPHIC ARTS (3)	94	47.26	8.23
LOCKSMITH-IRONSMITH	462	47.57	8.47
JOINER	775	47.57	8.97
FARM EQUIPMENT MECHANIC	226	47.66	8.05
DECORATOR / UPHOLSTERER	68	47.66	7.56
HORTICULTURALIST	349	47.87	9.28
BAKER-PASTRY CHEF	471	47.90	8.75
TINSMITH-PLUMBING INSTALLER	123	48.26	8.84
COMMERCIAL SCHOOL (OTHERS)	100	48.48	7.54
ELECTRICIAN, POWER SYSTEM	62	48.50	8.37
POLICE	51	48.57	10.19
RETAIL EMPLOYEE	195	49.08	7.81
NURSE	73	49.10	10.52
HOTEL SCHOOLS	67	49.85	9.51
AUTOMOBILE MECHANIC, HEAVY	117	50.10	8.94
AUTOMOBILE MECHANIC	1136	50.28	8.66
CABINETMAKER	336	50.53	9.35
DRAFTER, HEATING	77	50.83	7.74
GRAPHIC ARTS (4)	176	50.98	8.05
COMMERCIAL SCHOOL (OFFICIAL DIPLOMA)	473	51.06	8.22
ADMINISTRATIVE EMPLOYEE	2931	51.09	8.50
DENTAL-LAB TECHNICIAN	54	51.54	6.95
POST OFFICE CLERK	116	51.61	9.24
FITTER-ELECTRICIAN	1346	51.64	8.26
TOOLMAKER	190	51.70	8.19
MECHANIC	1459	52.13	8.52
ELECTRICIAN, AUTOMOTIVE	55	52.15	9.05
SCHOOLS (ADMINISTRATION+TRANSPORTATION)	54	52.24	9.38
ACCOUNTANT	47	52.40	9.35
TICKET COLLECTOR, TRAIN	83	52.52	8.38
GRAPHIST	45	52.82	8.15
DRUGGIST	43	53.23	7.68
MUSIC CONSERVATORY	51	53.55	10.10
SECONDARY SCHOOL (MODERN LANGUAGES)	143	53.89	7.46
ELECTRICIAN, RADIO + TV	213	54.16	8.16
LAW	234	54.37	8.12
DRAFTER, ARCHITECTURAL	451	54.59	7.96
SECONDARY SCHOOL	530	54.67	7.65
DRAFTER-SURVEYOR, CIVIL	379	54.68	7.96
MECHANIC, MACHINES	627	55.04	9.07
SECONDARY SCHOOL (CLASSICAL)	98	55.04	7.87
MEDECINE	202	55.07	8.41
DRAFTER, ELECTRICAL	67	55.36	7.55
PRIMARY SCHOOL TEACHER	227	55.48	8.26
MECHANIC-ELECTRICIAN	409	55.51	8.18
TEACHERS' TRAINING COLLEGE	174	55.59	6.91
ECONOMICS	233	55.65	7.49
STATION AGENT	165	55.71	7.85
SECONDARY SCHOOL (CLASSICAL/MODERN)	879	55.76	7.84
HUMANITIES	82	55.83	6.73
LAB ASSISTANT, CHEMISTRY	179	55.99	7.52
SWISS TECHNICAL COLLEGE	265	56.91	7.92
ELECTRONICS TECHNICIAN, RADIO + TV	147	57.49	6.66
DRAFTER, MECHANICAL	441	57.53	7.39
POLYTECHNIC INSTITUTE, ARCHITECTURE	58	57.76	9.36
SCIENCE	177	58.42	8.16
SECONDARY SCHOOL (SCIENTIFIC)	943	58.57	7.36
FITTER, ELECTRONICS+TELECOMMUNICATIONS	266	59.17	7.70
SWISS POLYTECHNIC INSTITUTE	429	59.79	6.85
MECHANIC, ELECTRONICS	212	59.85	7.22

APPENDIX C

AVERAGE ON THE B 53 (T SCORES) OBTAINED BY MEMBERS OF OCCUPATIONS IN METALLURGY AND MACHINE CONSTRUCTION

occupations	average	standard deviation
- fitter, furnaces	45.56	8.28
- plumbing installer	45.58	9.22
- tinsmith	46.46	8.72
- bicycle + motorcycle repairer	46.71	8.97
- auto-body repairer	47.00	8.81
- locksmith-ironsmith	47.57	8.47
- farm equipment mechanic	47.66	8.05
- tinsmith-plumbing installer	48.26	8.84
- electrician, power system	48.50	8.37
- automobile mechanic, heavy	50.10	8.94
- automobile mechanic	50.28	8.66
- fitter-electrician	51.64	8.26
- toolmaker	51.70	8.19
- mechanic	52.13	8.52
- electrician, automotive	52.15	9.05
- electrician, radio + tv	54.16	8.16
- mechanic, machines	55.04	7.87
- mechanic-electrician	55.51	8.18
- electronics technician, radio + tv	57.49	6.66
- fitter, electronics + telecomm.	59.17	7.70
- mechanic, electronics	89.85	7.22

APPENDIX D

RANK OF A SERIES OF OCCUPATIONS IN THE ORDER OF MENTAL ABILITY AS DETERMINED BY EXPERTS AND AS OBTAINED BY PERFORMANCE ON THE B53 TEST

EX : experts assessment (stanines) TT : training time (in years)
NR : number of respondents av : average on the B53 (T scores)

EX	OCCUPATIONS CONSIDERED	TT	NR	AV	REMARKS
2	painter, automotive	3	173	43.66	
	hair stylist	3/4	44	45.98	all categories
	bicycle+motorcycle repairer	3/4	87	46.71	
	baker-pastry chef	3	471	47.90	including candy-maker
3	mason	3	743	44.97	
	fitter, furnaces	3.5	183	45.56	
	plumbing installer	3	354	45.58	
	wine waiter	2	94	46.09	
	cook	3	823	46.76	
	auto-body repairer	4	230	47.00	
	locksmith-ironsmith	4	462	47.57	includ. building trade
	decorator / upholsterer	4	68	47.66	
	farm equipment mechanic	4	226	47.66	
	horticulturer-florist	4	349	47.87	
4	farmer-breeder	3	1642	44.92	
	sales person	2.5	450	45.84	
	joiner	4	775	47.57	
	automobile mechanic	4	1136	50.28	ligth weigth or undef.
	fitter-electrician	4	1346	51.64	
	mechanic	4	1459	52.13	including: mechanic-metal worker mechanic-precision w.
5	nurse		73	49.10	all categories
	toolmaker	4	190	51.70	
	druggist	4	43	53.33	
	mechanic-electrician	4	409	55.51	
6	administrative employee	3	2931	51.09	
	drafter, architectural	4	451	54.59	
	drafter, civil	4	379	54.68	including surveyors
	lab assistant, chemistry	3	179	55.99	
	drafter, mechanical	4	441	57.53	all categories
7	electrician, radio + tv	3	213	54.16	
	electronics tech. radio+tv	4	147	57.49	
	mechanic, electronics	4	212	59.85	

APPENDIX E

RANK OF SERIES OF OCCUPATIONS AND OCCUPATIONAL GROUPS IN THE ORDER OF MENTAL ABILITY AS OBTAINED BY THE PM38 AND B53 (AVERAGES IN T SCORES)

British navy : candidates aged 17 to 29
P.E. Vernon, 1949 (PM 38 Test)

Swiss army : recruits aged 20
J.B. Dupont, 1984 (B 53 Test).

	BRITISH NAVY	number	SWISS ARMY	number	average
1.	laborers all categories except farming	11806	laborers building industry others	19 32	37.16 40.47
2.	farm laborers except drivers	2279	farmers	1642	44.92
3.	drivers all categories of vehicles except cranes and tractors	4648	drivers	279	44.52
4.	building industry masons, plasterers, painters roofers, etc.	2662	painters house masons plasterers-painters roofers	401 473 71 71	43.88 44.97 46.34 41.69
5.	work with machines machinists, millers, etc.	5597	machinists	52	43.15
6.	work with sheet metal plumbers, welders	4668	ironsmiths-locksmiths tinsmiths auto-body repairers plumbing installers	462 169 230 354	47.57 46.46 47.00 45.58
7.	retail trade sales persons, waiters, etc.	8458	sales persons wine waiters retail employees	450 94 195	45.84 46.09 49.08
8.	work with wood carpenters, joiners, cabinetmakers	2975	carpenters joiners	479 775	46.56 47.57
9.	precision work metal workers, turners, toolmakers, except fitters	10224	mechanic-metal workers and other mechanic- toolmakers	1459 190	52.13 51.70
10.	electricity telegraphists, wire layers, radio operators	4095	radio + TV electricians fitter-electricians	219 1353	54.15 51.64
11.	office work employees, warehousemen, accountants	10465	employees accountants	2969 147	51.08 52.40

THE ORGANIZATION AND ADMINISTRATION OF CAREER GUIDANCE IN THE EDUCATIONAL SPHERE IN GREAT BRITAIN

by
H. Z. Hoxter

Career guidance in Britain is administered at present on a rather ad hoc basis. There is no effective central co-ordination of the varied local and school-based initiatives. Responsibility for careers education in schools lies with local education authorities. There is no clear job specification for a careers teacher. The Institute of Careers Officers outlined their aims in 1977, namely to press for a higher profile for careers education, the promotion of work experience schemes, and to stress the relevance of school as preparation for adult working life. Entrants into the educational and vocational guidance service require a diploma from the local government training board, but there is no set requirement for becoming a careers teacher in schools. This function is frequently performed by teaching staff who have no formal qualifications in this field. There is, however, a growing demand for training, and lists of courses exist which are approved by the National Association of Careers Guidance Teachers, and by the National Institute for Careers Education and Counselling. These courses are mainly part-time or short-term, but there are two one-year full-time courses.

The aims and objectives of career guidance are similar to those of education itself in that they both seek to produce citizens with the skills required to take their place in the labour force. Bearing this in mind, the limitations of "counselling" pupils only as they leave school are obvious. The rate of technological change and its social consequences mean that education must be available throughout a lifetime for members of society to continue being productive. The concept of life itself as an ongoing education and therefore vocational guidance as desirable from a very early age right through to retirement and beyond, is at last gaining currency in many areas. Although career guidance is still not given high priority in most educational settings, many schools and colleges are tackling it with energy and inspiration.

It is generally agreed that vocational guidance should be extensive, free of charge, and ideally based within schools where possible, allowing pupils optimum accessibility, and because teachers will be more familiar with pupils than an external counsellor. But the emphasis placed on careers guidance is very much left up to the individual school: there is no legal obligation for British schools to provide any career guidance, although there is a marked increase in official interest. It is, however, mandatory to local education authorities to provide a Careers Service, providing information on careers, vocational guidance and a placement service, and this range of activities is constantly being expanded. The Careers Service is now channelling its energies not only into careers education programmes and counselling within schools, but also offers advice and guidance to unemployed people of all ages and those on government-run training schemes. But, as with the school-based programmes, these

schemes lack nationwide cohesion, as they too are financed and administered by local education authorities. Job Centres - employment-finding agencies run by the government - are more or less standardised throughout the country, and receive more funding and have a higher profile than the Careers Service, but they are not used much by young people still at school. Also, Job Centres deal purely with job vacancies and placements, and offer no counselling and occupational guidance.

As the Careers Service relies on the co-operation of teachers and head-teachers for its access to pupils, its effectiveness varies accordingly, and careers provision in British schools still ranges from the planning of a comprehensive careers education programme, integrated into the curriculum, to a brief one-off interview with a pupil a couple of months before leaving school, when it is too late to offer educational and vocational orientation, with the result that many British pupils leave school at the age of 16 or 17 feeling inadequately prepared for the next stage of their lives. However, that said, careers guidance in some schools is playing a more fundamental role in the curriculum.

Britain is gradually moving towards a concept of education up to the age of 16 as a phase of vocational guidance; some teachers are becoming more aware of the vocational significance of their subjects, and more involved with the vocational guidance process as a whole. Careers education now tends to be integrated into the pastoral curriculum, with "social and life skills", so the careers teacher has no longer a monopoly on personal counselling. Schools are now more inclined to allow "tutor time" for teachers to deal with pupils as individuals. So, where ten years ago careers guidance was regarded as a separate subject per se, with time and resources allocated to it as to any other subject, it is increasingly being absorbed into the teaching of other elements in the curriculum, focussing around students' individual lives: social, moral and health education, education in personal relationships and so on. Education is now seen as much more instrumental; the intellectual bias has changed in favour of so-called "opportunity awareness", that is, familiarity with social and economic structures and trends, including a variety of courses aimed at the less academically inclined pupils, involving specific vocational experience and direct contact with local trade and industry. The traditional school report on each pupil is also being superseded by a "profile report" for those of a less academic nature, which lists basic work skills and aptitudes instead of concentrating on academic abilities only.

Career guidance has now also broken the boundaries of the classroom, and many schools are cultivating links with local social partners, community projects, business and industry. (Incidentally, this area is one in which retired people from these backgrounds can be valuable, having both the time and the knowledge and experience to cultivate these links.) Methods such as work experience, work simulation and inviting "adults other than teachers" into the classroom are all being used by the more innovative of the school-industry projects. 1986 is "school-industry project year" sponsored by the government, and has involved many initiatives encouraging pupils to find out more about local industry. Another nationwide scheme offering training for young people is the government-sponsored Youth Training Scheme, which has all but replaced apprenticeships in some trades. It offers subsidised training to employers, encouraging them to take on unskilled youngsters, and in areas of moderate unemployment has done much to find job placements for its young trainees.

Over the past decade there have been major increases in innovations in career

guidance programmes, tools, and techniques. Schemes are better organized, more frequently theory-based, and more systematically used than before. Psychological research into counselling is being put into practice, and the technology used to deliver careers information has also facilitated rapid advances. In fact, careers information is now being packaged to suit the new media (computers, video interactive systems, etc.). Up-to-date lists of places available on polytechnic and university courses are displayed on Prestel, the nationwide computer-based information network. The advent of the computer in the field of career guidance must be the most significant advance. It is imperative that educational and vocational guidance services stay abreast of the most recent technological developments, remaining aware of the ever-changing requirements of the labour market. In Britain, the use of computers in this area has been hitherto relatively limited, in some cases merely substituting the traditional one-to-one interviews between pupil and counsellor, but the range of applications for this tool grows steadily. The government has now decided to fund the development of a Computer-Aided Careers Guidance System for use in higher education, which is designed not merely as an information-dispenser but also as a learning system, and covers a much wider range of functions. Computers will play an increasingly important role in the careers guidance system in Britain, thus relieving staff of the more routine aspects of their work and allowing them to concentrate more on individual counselling.

Professional counsellors and careers advisers must acquaint themselves fully with these tools and techniques of today's world, achieving an understanding of the changing face of the labour market, and so help young people towards a realistic appraisal of the world they are entering and their own role within it, for the well-being of all.

THE INFLUENCE OF EDUCATIONAL REFORM PROPOSALS ON VOCATIONAL GUIDANCE IN AMERICAN ELEMENTARY AND SECONDARY EDUCATION

by

Kenneth B. Hoyt

Introduction

Calls for "educational reform" have been the dominant force in American Education during the decade of the 1980s. Much of the basis for such calls lies in expressed concerns relative to America's ability to compete successfully in the world marketplace. Thus, it seems logical to assume that the topic of vocational guidance would play a prominent role in each of the major educational reform proposals. This assumption has proven itself to be largely untrue.

The purposes of this paper are: (1) to illustrate what has been said about counselors in general and vocational guidance in particular in several of the major American educational reform proposals; and (2) to relate vocational guidance to other reform efforts associated with preparing persons for work.

Calls for Vocational Guidance in Educational Reform Proposals

The term "vocational guidance" is not used explicitly in *any* of the currently most popular calls for educational reform in America. This is primarily because in America, the term "vacational guidance" is rapidly being replaced by the broader term "career guidance". For purposes of this discussion, let us assume that the two terms are synonymous in meaning.

Listed below are bibliographical references to several major calls for educational reform. Following each reference, direct and/or indirect quotes relative to the nature of and need for vocational guidance are presented.

Boyer, Ernest L. *High School: A Report on Secondary Education in America.* New York: Harper & Row, 1983.

> (P. 131) - "... At every school we visited, the counselors were shockingly overloaded. They had little time to talk to students about career choices... The American high school must develop a more adequate system of student counseling. Specifically, we recommend... no counselor should have a caseload of more than one hundred students..."

Investing in Our Children: Business and the Public Schools. A Statement by the Research and Policy Committee of the Committee for Economic Development. New York: Committee for Economic Development, 1985

> "Employers... decry the lack of preparation for work among the nation's high school graduates... Many high school graduates are virtually unemployable... One of the most important ways people can realize their potential is through productive and rewarding work"
>
> (In discussing exemplary efforts, one of those discussed - "The Boston Compact" - recommends) - "A career specialist, who works for the PIC* and is paid with school department funds, in nearly every high school helping young people prepare for, find, and succeed in employment"

*PIC stands for "Private Industry Council" - a community organization dominated by employers and operating outside the education system

Business and Education: Partners for the Future. Washington, D. C. : Chamber of Commerce of the United States, 1985.

(p. 40) - "... What can we do to better assist non-college bound youth? ... work with guidance counselors to identify local employment opportunities..."

Note: This publication, prepared primarily for use by business persons, reviews eight major educational reform proposals. Nowhere in that review is there any mention of vocational guidance other than the small quote above.

Employment Policies: Looking to the Year 2000. Washington, D. C. : National Alliance of Business, 1986.

(p. 7) - "The workforce will require better labor market information and improved counseling, testing, and assessment services... Youth must be provided information on job opportunities as early as junior high so they can begin to explore careers... Lack of career knowledge... contributes to poor work attitudes and job hopping and affects long term earnings..."

The Unfinished Agenda: The Role of Vocational Education in High School. Columbus, Ohio: NCRVE, The National Commission On Secondary Vocational Education, 1984.

(p. 10) - "We need comprehensive career guidance programs that will provide this information... available to all students, covering all subjects, and leading to all occupations... We cannot achieve this goal... unless counselors expand their use of group techniques, computer assisted guidance, comprehensive information systems, and... serve as a resource to integrate career guidance concepts in the classroom"

A Nation at Work: Education and the Private Sector. Washington, D. C. : National Alliance of Business, 1984.

(p. 7) - "... Students need to learn realistic work attitudes and behavior early in life... to understand and prepare for the world of work..."

"... Many employers blame poor counseling... Counselors need a much greater awareness of the job market... we must focus on increasing the knowledge of teachers about the business community and careers offered therein..."

Educating Americans for the 21st Century. Washington, D. C. : The National Science Board Commission On Precollege Education In Mathematics, Science, and Technology, 1983.

(p. 41) - "Guidance counselors play an important role in academic and career advising... School districts must give special consideration to the ... responsibilities of... persons who occupy such positions... counselors should be selected and trained with appropriate emphasis on... sensitivity and understanding... to abolishing discrimination based on race, sex, ethnicity, or socioeconomic conditions..."

High Schools and the Changing Workplace: The Employers' View. Report of the Panel on Secondary School Education for the Changing Workplace; National Academy of Sciences, National Academy of Engineering, Institute of Medicine, Committee on Science, Engineering, and Public Policy. Washington, D. C. : National Academy Press, 1984.

"The panel... asked its employer members to describe the employees they will need in the years ahead. A single answer comes... i. e. ... a person who is able and willing to learn throughout a working lifetime..."

"Core competencies... (in the area of personal work habits and attitudes) ... include: (1) a realistic positive attitude toward one's self; (2) a positive attitude toward work and pride in accomplishment; (3) a willingness to learn; (4) self discipline, including regular and punctual attendance and

dependability; (5) the ability to set goals and allocate time to achieve them; (6) the capacity to accept responsibility; (7) the ability to work with or without supervision; (8) appropriate dress and grooming; (9) an understanding of the need for organization, supervision, rules, policies and procedures; (10) freedom from substance abuse; and (11) appropriate personal hygiene."

A Nation at Risk: The Imperative for Educational Reform. Washington, D. C.: The National Commission on Excellence in Education, 1983.

(p. 13) – "Our goal must be to develop the talents of all to their fullest. Attaining that goal requires that we expect and assist all students to work to the limits of their capabilities."

Note: This historic government document does not contain the words "guidance", "counselors", "counseling", "vocational guidance" or "career guidance".

Each of the reform proposals cited above was selected because it has received nationwide attention. In addition, some were also selected, in part, because they involved key representatives of the private sector as participants in their formulation. By so doing, we have maximized chances of finding the topic of "vocational guidance" discussed in the context of educational reform.

Viewed as a whole, there seems no doubt that the basic need for educational reform is, in the eyes of these commissions, very much related to perceived weaknesses in American education's ability to meet the goal of education as preparation for wbrk. The total set of remedies proposed clearly includes calls for more and better vocational guidance. This call is evident in quotes cited above from: (a) Boyer; (b) Committee for Economic Development; (c) Chamber of Commerce of the United States; (d) National Alliance of Business; (e) the National Commission on Secondary Vocational Education; and (f) the National Science Board. It has, in most cases, been largely ignored by implementers of educational reform while other kinds of calls for reform have received major national attention. Still, quotes such as those cited above make its existance clear and obvious to all who study the total reports carefully.

Perhaps even more significant here are the many other kinds of actions called for in these reform proposals aimed at increasing the effectiveness of American education in meeting the goal of education as preparation for work. The quotes provided above emphasize such additional goals as:

1. The need for partnerships between the business community and the education system aimed at readying youth for work.
2. The need for equipping youth with a set of general employability skills that will alow them to change with change in a rapidly changing occupational society.
3. The need to help all youth acquire positive work values that lead them to value work as part of total lifestyle.
4. The need for elementary and secondary school classroom teachers to show pupils how their subject matter relates to occupations.
5. The need to better relate education and work in lifelong learning.
6. The need to reduce bias and stereotyping in career patterns.

Each quote cited above refers to one or more of these six additional goals. The unspoken message in these quotations seems to be that, necessary as vocational guidance may be, it must not be considered as sufficient to meet the goal of education

as preparation for work. Something more is needed.

Career Education, Vocational Guidance, and Educational Reform

A strange paradox exists with respect to educational reform in American Education. Its nature can best be understood by simultaneously recognizing that: (1)the career education concept, as introduced by Dr. Sidney P. Marland, Jr., clearly is a proposal for educational reform (Marland, 1974); (2) when the variety of current calls for reform related to education as preparation for work are examined as a total set of recommendations, they appear synonomous in meaning with the current definition of the term "career education"; and (3) none of the major calls for educational reform in America mention the term "career education". A lay person reading these reform proposals would almost surely be led to conclude that: (a) the career education movement is dead; or (b) the career education movement never existed. Both of these conclusions would be false.

Data supporting a contention that the career education concept is alive and well in America today can be found in the files for that NATIONAL CAREER EDUCATION LEADERS' COMMUNICATION NETWORK that I direct. Membership in this network is open, without charge, to any and all persons interested in and/or supportive of the career education movement. Of the 400-500 network members, some are found in each of the 50 States along with one or more from (a) Great Britain; (b)Japan; (c) Netherlands; (d) Australia; and (e) Canada. Most of America's national career education leaders - and many vocational guidance leaders - are Network members.

Each year's Network members are regarded as a random sample in time of persons interested in the career education movement. No pretense is made that Network members' perceptions can or should be generalized to the general population.

Data are collected from Network mambers through the Enrollment Form each is asked to complete on an annual basis. Each year since 1982, one item on this form has asked respondents to rate the "health" of career education in their community on a 5 point scale ranging from "Stronger than ever" (5 points) to "Little support left" (1 point). Results over the four year period 1982-1986 are presented below in Table1.

Table 1 - No. and % of All Respondents Judging The "Health" Of Career Education On A Five Point Scale

Category	Stronger Than Ever	In Place & Likely to Stay	Some Support Most Ignore	Support Weakening	Little Support Left	"Health" Score
'85-86 Replies (N=387)	64 16.5%	173 44.4%	102 26.3%	39 10.1%	9 2.3%	363
'84-85 Replies (N=413)	72 17.4%	175 42.4%	104 25.2%	54 13.0%	8 1.9%	360
'83-84 Replies (N=418)	66 13.4%	195 46.6%	97 23.2%	48 11.4%	12 2.8%	358
'82-83 Replies (N=428)	62 14.4%	303 71.0%		59 13.7%	3 0.7%	356

Data in Table 1 clearly show the stability and strength of career education in communities where Network members live. It is especially evident in the "Health"

scores. Each "Health" score is calculated by multiplying the mean rating by 100. Thus, "356" represents a mean rating of 3.56 on a 5 point scale. The variation in ratings over the 4 year period is .07 points. This indicates a remarkable degree of both strength and stability.

Item 12 on the 1985-86 Enrollment form asked respondents to rank order seven possible ways of defining career education. Points were calculated for each definition by assigning 7 points for each 1st choice, 6 to each 2nd choice, etc.. Results in terms of numbers of respondents making each of the first four possible ranks along with the total points calculated on the basis of these four ranks are presented below in Table 2.

Table2 - No. of Respondents Indicating Their 1st -4th Choices For Various Possible Ways Of Defining Career Education

Definition	No. 1st Choices	No. 2nd Choices	No. 3rd Choices	No. 4th Choices	Total N Voting	Total Points
Promote/Implement Private Sector/Ed Partnerships	52	41	33	14	140	831
Equip Persons with General Employ-ability Skills	78	58	37	24	197	1175
Career Awareness/ Exploration/ Decisionmaking	184	71	25	9	289	1875
Reform Education By Infusing "Careers" Emphasis in Classes	46	46	27	16	135	797
Make "Work" Meaningful Part of Lifestyle	24	22	39	22	107	583
Relate Education and Work	54	55	41	25	175	1013
Reduce Bias and Stereotyping	16	14	14	12	56	314

1st Choice = 7 points; 2nd Choice = 6; 3rd Choice = 5; 4th Choice = 4

It will be instructive to compare the data in Table 2 with the set of quotations cited earlier calling for a variety of kinds of educational reform. Let us examine these one at a time.

First, data in Table 2 make it apparent that career education defined as vocational guidance - i. e., "career awareness/exploration/decisionmaking" -was, by far, the first choice of respondents. The importance of the vocational guidance component of career education is evident. So, too, is it evident that this represents but one of seven major components in the total concept of career education.

The second most popular way of defining career education (1175 points in Table 2) is as an effort to equip persons with a set of general employ-ability skills they can use to change with change in rapidly changing occupational society. Career education has, for many years, emphasized the need for such skills. Its emphasis on their importance has been one of the prime ways in which "career education" has been distinguished in meaning from "vocational education". (Vacational education has, traditionally, been defined in terms of providing specific vocational skills - not general employability skills. In the last year or so, some vocational education leaders have changed and are now also embracing general employability skills.) Several of the reform proposals cited above have placed heavy emphasis on this component of career education. Career education practitioners *are* providing such skills now.

Table 2 shows that defininte career education as an effort to relate education and work is in third place among Network members with 1013 points. The importance of this goal is emphasized in almost every educational reform proposal in which private sector persons served as commission members. Bringing the "world of schooling" and the "world of work" closer together was what Dr. Sidney P. Marland, Jr. advocated in the early 1970s when he first introduced the concept of career education (Marland. 1974). Network members obviously still place a high priority on this component of career education even though their efforts have not been explicitly recognized by the major educational reform commissions.

Many educational reform commissions have made calls for private sector/education system partnerships a top priority. The career education movement has been engaged in this kind of effort since the early 1970s. Currently, we are watching many who are apparently ignorant of career education's past efforts and experience and are attempting to "re-invent the wheel" of private sector/education partnerships as part of educational reform. Data in Table 2 make it clear that career education advocates continue to place high value on the this component of career education.

More than one major educational reform commission has recommended that elementary and secondary school teachers help pupils learn how the subjects they study in school relate to various occupational requirements. Career education practitioners have been engaged in this kind of activity for more than 15 years. We have called it "infusion". Table 2 shows that, with 797 points, infusion efforts are still considered important by career education advocates. This is one of the prime ways through which career education has been able to demonstrate its viability as a vehicle for improving basic academic skills.

The importance of making "work" a meaningful part of total lifestyle is a popular theme among many educational reform groups. This concept, too, has been part of career education from the the beginning. The first official definition of career education I wrote stated:

> Career Education is the total effort of the community and the education system to help all individuals become familiar with the values of a work oriented society, to integrate these values into their personal value structure, and to implement these values into their lives in such a way that work becomes possible, meaningful, and satisfying for each individual. (Hoyt et al, 1972)

It is gratifying to see some major educational reform commissions advocating, in effect, these same concepts. I do not know why, in doing so, they failed to recognize it as one of several components embodied in the career education effort.

Finally, it should be noted that one major reform proposal cited earlier (i. e., The National Science Board) advocated elimination of bias and stereotyping as a major kind of reform effort. That goal has been - and, as data in Table 2 make clear, continues to be - a major component of the career education concept.

Vocational Guidance and Educational Reform: Retrospect and Prospect

All seven components of career education - including its vocational guidance component - are scattered somewhere within the array of major calls for educational reform now popular in America. The vocational guidance component of career education is, as of now, the first choice of career education advocates as a means of defining what career education aims to do.

The vocational guidance component is *not* the one most highly publicized and/or recommended by major educational reform commissions. Instead, such commissions tend to emphasize (1) general employability skills; and/or (2) private sector/education system partnerships as their prime vehicles for use in implementing the goal of education as preparation for work. Both of these components have received several times as much attention as has vocational guidance by those authoring major educational reform reports. Being popular with career education advocates doesn't make vocational guidance a top priority of any major educational reform commission.

Even the well publicized components of general employability skills and private sector/education partnerships have failed to take top priority as educational reform proposals. Instead, top priority has typically gone to such things as: (1) increasing graduation requirements; (2) raising teacher salaries; (3) assigning more homework to pupils; and (4) increasing the emphasis on importance of basic academic skills. While the goal of better preparing pupils for work has been used as a major basis of *need* for educational reform in America, it has not received an equally high level of support when it cames to *implementation actions.*

How can vocational guidance exert a greater and more positive influence on the *implementation agendas* of those major decisionmakers of educational reform in America? It seems to me the answer can be found in recognizing the following:

1. It is highly likely that, if the vocational guidance movement continues to operate separate and apart from other ways of fostering career development, it will fail to receive priority status among those controlling educational reform in America. It is imperative that the vocational guidance movement join forces with others if it is to be recognized as an educational reform priority (Hoyt, 1985).
2. Neither general employability skills nor private sector partnerships with education are powerful enough to sustain themselves as educational reform priorities unless they join forces with each other and with other avenues of preparing persons for work. Their current popularity as "stand alone" entities is sure to be fleeting unless these kinds of linkages are made.
3. No one of the seven major components of career education is popular enough - or effective enough - to become a lasting top priority for educational reform. Each, by itself, must be described as *necessary* but not *sufficient* as a vehicle for use in preparing persons for work. Yet, when combined into the total career education concept, there is plenty of power for use in becoming - and staying - a top priority for educational reform.

4. The term "career education" is almost 20 years old as a proposal for educational reform. While it would make good sense to try to help today's educational reform leaders recognize and utilize the term "career education", it seems doubtful this would succeed. It is hard to convince educational reformers they are really leading the way if they are asked to use a 20 year old term !

Whether or not the term "career education" is used is relatively unimportant. What *is* important is the recognition of the need for a wide variety of components, each holding potential for helping to better prepare persons for work, to join forces under one umbrella term. If they were to do so, that umbrella term seems likely to be one that would gain support from leaders in the private sector - and recognition by leaders in education. As one such component, participation in shch a joint effort would be especially useful for and helpful to the vocational guidance movement.

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CURRENT ISSUES OF VOCATIONAL GUIDANCE IN PARTICULAR, THE INFLUENCE OF RECENT DEVELOPMENTS IN THE EDUCATIONAL SYSTEMS OF THE UNITED STATES, AND HAWAII ESPECIALLY

by

Emiko I. Kudo

A. Current issues of vocational guidance/career education as perceived by the various sectors in the community.

Issue 1: Inordinately large time allotments for basic skills development in schools.

"Not enough time in the school day to include experiences in career education with the recent emphasis on basic skills development; art and music are also being de-emphasized."

"The required program of instruction barely leaves time for career education."

Issue 2: The lack of attitude development in the school programs.

"Employers in Hawaii continue to find the lack of appropriate attitudes for work success in the real world among graduates."

"Concentrated efforts to improve basic skills is only fulfilling half the need of graduates."

Issue 3: Special centers for various programs and services in vocational guidance/career education.

"The concept of special centers or schools for *learning, training, technology awareness, specialty programs, special services, and other various unique offerings* is being generally accepted in American schools and in Hawaii recently; relegating vocational guidance/career education to such centers will not reach all students."

Issue 4: Reversal of trend to allot special funding for special programs and services.

"The trend of special funding for programs and services in American schools, which developed over a twenty year period, is now being stemmed by the new Federal administration. The public school system and personnel are having difficulty adjusting to carrying on a needed program without a special allotment of resources."

Issue 5: Unionization of school personnel.

"The unionization of teachers, as well as principals, in Hawaii is a recent development although teachers and principals have long been members of professional organizations. The fact that government employees were allowed to unionize and to negotiate working conditions have impacted on school programs greatly."

"Non-school hour educational services and programs have been greatly curtailed and career education/vocational guidance experiences of students, therefore, have been decreasing."

"In other words, the unions are not encouraging school personnel to serve students without appropriate compensation."

Issue 6: Impact of teacher education reform movement.

"Changes in teacher education programs in colleges and universities, contemplated or implemented recently, will impact on career education/vocational guidance programs negatively."

"Perhaps with careful planning and forethought in terms of teacher needs to meet the career education/vocational guidance objectives of students, the impact could be positive."

B. Essential steps in resolving the foregoing issues of career education/vocational guidance in Hawaii schools.

1. Analyze the existing successful programs in a grade level, class or course, school or district and determine the elements basic to classifying it a model or exemplary program.

The analyzed programs and projects varied in terms of the number and kind of major career education goals to be developed; many had a single goal and others noted all four goals to be attained. The four major goals are: (1) Self-realization, (2) economic efficiency, (3) social relationships and (4) civic responsibility.

Twenty four exemplary career education programs, projects and activities in the public schools of Hawaii were reviewed and analyzed to determine the elements in each which were basic to its success.

The list of elements identified included: (1) Full support of school administration, (2) teacher initiated, (3) parent involvement, (4) school-wide, (5) community participation, (6) classroom based, (7) includes basic skill development, (8) adequately resourced, (9) integrated with other subjects, (10) student centered, (11) meaningful experiences, (12) clearly stated objectives, (13) includes work habits development, (14) includes self understanding, (15) includes educational-occupational opportunities, (16) includes productive use of leisure time, and (17) reduces or minimizes stereotyping.

2. Determine the common basic elements among model programs.

The seventeen elements identified in studying the twenty four exemplary models were not common to all. The only common basic elements among the twenty four models analyzed were that they all had *full support of school administration*, they were all *student centered* with *meaningful experiences* and *clearly stated objectives.*

Depending on the intended goals to be reached by the individual models studied the result of the analysis showed there are common basic elements among programs and projects for the same career education goal or set of similar goals.

For instance, the additional common basic elements in programs and projects for developing self-realization were: (1) *classroom based*, (2) *includes self understanding*, (3) *reduces or minimizes stereotyping*, and (4) *adequately resourced.*

The exemplary programs and projects designed to develop all four major goals of career education have common basic elements beyond the ones common to all. They were (1) *includes self understanding*, (2) *includes educational-occupational opportunities, and* (3) *reduces or minimizes stereotyping.*

3. Study each issue identified in terms of the basic elements inherent in the model programs.

As each of the six identified issues are examined in relation to the seventeen basic elements found in the various model programs studied, the resolution of the problems presented by the issues seems to be generally simple.

4. Recommend resolutions for the benefit of students in terms of programs and services within given situations which may or may not resolve the issue or issues identified.

Lack of Time: Include basic skills development and other subject area content as career education/vocational guidance concepts are being developed in the classroom-based instructional program.

Unionization: By concentrating on meaningful experiences in the classroom the unionization issue is also mitigated in that extra time beyond the school day is not involved.

The various business-education partnerships developed and implemented by the Department of Education and the business/industry community facilitate the participation of the community in the students' growth and development through career exploration, choices and final decision-making. Having an overall arrangement negotiated by the Department lessens the need for school level staff to expend large amounts of time to make the special plans.

Using the personnel from the world of work to supplement the school's instructional staff is already being done.

Attitude Development: Work habit development and employability skills are related and should be basic to the educational process and program of all individuals. The recent trend toward utilizing the classroom teacher as a guidance figure will indeed give impetus to overcome this deficiency.

The graduates of our schools are being criticized for not having the proper attitude for work success in the real world. The curriculum developers and program specialists must concentrate on helping teachers to strengthen the educational experiences of students that promote growth and development of appropriate attitudes.

Lack of Special Fund Allotments: The lack of special funds for most of the exemplary models, especially when the career development/vocational guidance programs, projects and activities, are part of the mainstream instructional program, shows that successful programs can exist and be maintained by regularly allocated resources. Special human and material resources need not be the standard for successful programs.

Specialized Centers or Schools for Various Programs and Services: While the magnet school concept is becoming popular in Hawaii, career education/vocational guidance centers would be more appropriate if available on at least every high school campus. Such centers without an on-going instructional program within the classroom will be only half as effective.

Teacher Training Reform: The recently implemented or contemplated changes to teacher education programs will definitely impact career education/vocational guidance programs and services in our schools. While many believe the impact will be negative, now is the time to contribute ideas and strategies to make the impact positive.

One of the changes may be strengthening subject matter knowledge with less attention to pedagogy. If so, the career education/vocational guidance content must also be strengthened. It is incumbent on the reformers of teacher education to be cognizant of the need however, to balance the programs being developed. The changes should not be an *either-or* issue.

5. Recommend the utilization of innovative strategies to overcome the negative impact of the issues on career education/vocational guidance programs and services.

C. Summary statement of vocational guidance/career education at its best. (A quote from Kenneth Hoyt, 1978.)

"And if you put all these things together, you see basic skills, good work habits, work values, self understanding, understanding educational-occupational opportunities, productive use of leisure time, and reduction of stereotyping; put them all together and say, 'Isn't that what education's been trying to do all the time?'"

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VOCATIONAL GUIDANCE FOR WOMEN NEW DIRECTIONS TO MEET SOCIETAL CHANGES AND EXPECTATIONS IN NEW YORK CITY

by
Dorothea Z. Kuritzkes

I. Factors Contributing to Career Choices by Women

Margaret Mead, the renowned anthropologist, in one of her earlier works, "Male and Female", noted that the division of labor and task by sex was a characteristic of every known human society. Somehow, she noted, there was often little association between the task or work requirements and the abilities or characteristics of the sex to which the work was assigned. Often the same task or position was assigned to one sex in one culture and to the other sex in another culture. Professional observers of society, such as historians, anthropologists, sociologists, psychologists, economists, and political scientists have generally agreed with Mead's observations as to the intracultural consensus regarding "male" and "female" work. But, among these observers there is reasoned disagreement about the causes and implications of such a division of labor.

Until recently, many scholars accepted the sexual division of labor as a biological "given", a social form that derived from the basic reproductive differences between male and female. This school of thought generally assumed that because of women's reproductive capacities, their work functions centered on the "breeding and feeding" aspects of social and work life. Understanding the sexual division of labor from this perspective was fairly simple as tasks and responsibilities could be divided clearly along these dimensions.

A second school of thought, pronounced among anthropologists and sociologists, such as Levi-Strauss and Caplow, tended to add a functional component to these considerations. The division of labor by sex was viewed as the primary differentiating characteristic of the occupational world within some cultures from which certain crucial social functions were implemented. Thus, social purpose reinforced biological determination of work activity. Recently a more skeptical perspective has appeared in the scholarly literature. It has recognized the need for consideration of the different patterns of hierarchy and dominance, power and wealth, within a particular society as central to understanding the patterns and potential of who does what work within a given social order. Some contemporary scholars have proposed that the patterns of job assignment by sex are not biologically determined, but rather, may reflect or reinforce social and economic forces within a society.

This perspective may help to interpret characteristics of our own culture, where assignment of work to women and men has demonstrated patterns of stability as well as change over the years. In the United States during times of national emergency marked by high employment, such as the war years, women have been readily called upon to do jobs normally reserved for men, such as heavy assembly-line

work. This work may have been viewed as inappropriate - perhaps too difficult - during periods of low employment. Thus culture, economic trends and national necessity may influence beliefs about who "belongs" within a particular occupation.

In the United States no matter what proportion of adult women have participated in the work force, the types of jobs held by women have not changed very much. Women's jobs have generally emphasized similar clusters of tasks and characteristics, thereby limiting the range of occupational choices open to them. Even though women have recently penetrated strongholds that have been predominantly male, such as police and fire departments, for example, the occupations that were predominantly female in 1900 when women constituted 18% of the workforce were still predominantly female as of 1983 when women constituted 43.5% of the workforce!

In out culture occupations known as "male" have typically received more social recognition, higher status, and greater economic rewards than those labeled "female". The fact is the more "female" an occupation is, the less it typically pays.

II. Promoting Equal Opportunity For Women

As I have indicated previously, one of the most dramatic changes in our country's workforce is the increase of the number of women in that workforce. In 1983, women constituted 43.5% of the civilian labor force, as opposed to 30.9% in 1954 and only 18% in 1900. Today 63% of women over the age of 16 work and the number is expected to increase to 75% by 1995.

This trend is of profound importance to American society since it changes the concept of who the American worker is.

Rigid occupational sex-segregation, which has been one of the most pervasive aspects of the American labor market, has been accompanied by differential access to authority, unequal wages, separate job ladders and exclusionary practices restricting mobility between positions labeled "male" and "female". These factors have cumulatively led to an increase in the earnings gap between men and women over the last 30 years.

Today, the need to bridge the earnings gap is critical as women in New York City and across the country have become increasingly responsible for their own financial support and for the full or partial support of their families. If women are to improve their economic status and increase their earning potential, they must move in increasing numbers into nontraditional occupations.

An improvement in female earnings and occupational opportunities is directly linked to the educational system, for although the U. S. Labor Department reports that women workers are as well educated as men in terms of median years of schooling, there are differences in the kinds of education, training and counseling they receive which directs them into traditional and low-paying jobs.

In an effort to eliminate barriers which result in occupational sex-segregation, the United States Federal Government has enacted legislation which promotes equal opportunity for women and prohibits sex-discrimination in employment and training. Three statutes are particularly relevant to the occupational socialization of women prior to labor force entry: Title IX of the 1972 Educational Amendments, the Women's Educational Equity Act of 1974 and 1978, and the 1976 Vocational Education Amendments.

Title IX prohibits discriminatory practices in the treatment of workers in educational settings which receive federal funds. It also specifically protects students from sex discrimination. Moreover, it covers admissions policies, access to student financial awards, as well as access to curricular and extracurricular programs which include courses of study, and career counseling.

The Women's Educational Equity Act authorized funding at all educational levels for model educational programs to eliminate sex stereotyping and to promote equal educational equity for females, thus providing administrative back-up to the Title IX legislation.

The 1976 Vocational Education Amendments were intended to provide a basis for the development of programs to eliminate sex bias, discrimination, and stereotyping and to provide equal access of the sexes to vocational education. The actions taken by the federal government have been a powerful means of promoting equal educational opportunity for women.

III. Vocational Guidance as a Positive Influence

While governmental measures have eliminated external barriers to job discrimination, more traditional employment has not changed as dramatically as expected. Although occupational segregation has declined, it continues at a high overall level since only a small percentage of women choose to enter non-traditional occupations, which are defined as having more than 70% representation of a particular sex.

Studies of occupational aspirations of pre-adolescents (pre-school and elementary school children) indicate that sex differentiation in occupational goals appears at an early age. The earliest and most pervasive socializing influences in the lives of children and adolescents that are likely to produce sex differences in occupational orientation arise within the family, where mothers and fathers not only provide information as role models and teachers but who may also treat male and female children differently. School influences reinforce the effects of family socialization through sex stereotyping in the presentation of occupational roles in textbooks and other educational materials, sex bias in the attitudes and knowledge of guidance counselors regarding the appropriateness of various occupations for males and females, as well as participation in different educational and training programs. However, during the past decade school counselors have increasingly recognized their responsibility in vocational guidance for assisting students, male and female, to explore non-traditional occupations. Here the F-test, the Fukuyama Profile, can play a key role in determining which experiences are needed to expand a student's occupational horizons. Counselors can help create a non-sexist environment where boys and girls are treated equally and have equal access to a rich variety of educational opportunities.

IV. A Glimpse at the Future

While changes in the proportion of women entering non-traditional occupations have been occurring, it is not easy to predict future trends. The rate of change will be subject to a variety of factors unrelated to sex-segregation per se, such as the emergence of new jobs as the national economy shifts from a manufacturing to a service base, as well as new forms of work organization and/or changes in employer-employee relationships. An important factor as well will be the rate at which men begin to cross over into traditionally female occupations. For example, we now see

men in occupations which were predominantly female 30 years ago, such as nursing and social work.

The share of families with children in which the mother is employed is steadily increasing, having reached 58% of all families according to the National Bureau of Labor Statistics. Today children in many families across the nation are growing up with the notion that women work as a matter of course, that the girls themselves will be workers when they grow up, or in the case of boys, that they will marry women who pursue careers.

It is clear that the next generation of women may be less troubled about pursuing both "masculine" as well as "feminine" careers as they continue to strive for equality of status and income in the labor market.

EDUCATIONAL RENEWING INFLUENCE ON VOCATIONAL AND SCHOOL GUIDANCE IN FRANCE

by
Jean PELLERANO

Three bearings preside over the definition of the new missions of school system while our world is evolving at a quick and rather unforeseeable pace.

1) *According to political reasons*, application of the law on decentralization now gives complete responsability in matter of education to the regional and local authorities (except pedagogy and personnel management).

It means that priority has been given to educational improvement and socio-economical profitability in every region, within the national framework and *in the field of training and its structures*; in the field of *state school administrative authority* (academic level), it implies a new attitude among individuals (partnership, negociation, readiness in sharing tools and results...).

2) In an other way, *economic conjuncture* makes us reconsider our educational aims, considering the new requirements of production system, which mean increasing needs of inventors and conceptors, therefore of technicians and scientists, with a special need of under-managers.

3) Too this evolution has an important *social side*. Because of political will, obviously in terms of solidarity and justice, but also of economic necessity, our society must give mastery of basic tools of communication and minimum vocational training to most pupils, unless which a quick and satisfying social and vocational settling can't be reached.

In such a context, guidance means exclusion no more but retaining instead, and the educational system must allow everyone's improvement in order to reach its goals:

- through taking into consideration every personality as a whole,
- through setting a differentiated and recurrent process of pedagogy,
- through developing tutoring in order to help every pupil working out personal plans,
- through setting a suitable system of social and vocational settling, in collaboration with economic and social partners.

Above important inequities between individuals produced by social factors, by the state of employment market and situation vacancies in firms, by the position and part taken by National educational services in the learning device, it means that *Educational* establishment must undertake a complete change at every academic level, first admitting, then taking into consideration the fact that its very functioning has a leading part into guiding and social settling of the young people entrusting it.

This prospect induces renovation in three directions:

- a change in the relation to learning

- a true recurrent education
- the setting of a continuous process of guidance and settling.

1) *A change in the relation to learning* depends on development of educational programs, valorization of such knowledges as technology, evolution of learning process in order to turn out as many young people as possible with the best of their abilities. Its concrete realisation is now based on *school projects development*, according to local circumstances, founded on permanent diagnostic operation and fitness for solving problems when and where they are, sustained by school managers and teachers intensive training.

2) *A true recurrent education* leads to looking for better connections between academic levels, for an end to partition of cycles, for an effective intercommunication between initial and recurrent education, so as to make the educational system as "pliant" as possible, in order to allow the most various curriculum trends to join in.

3) *The setting of a continuing process* of *guidance* induces integration of *observation, information and guidance activities* in establishments educational action, connected with a closer partnership with information and guidance services.

This approach, in which *Guidance* is one of the main dimensions of every school specific plan first implies more responsible headmasters and teachers, secondly guidance counsellors work evolution in two directions:

- helping teachers and filing clerks become skilled informants; helping schools establish systems to keep their pupils progress under observation and set up information and guidance programs adapted to their context, all of which increase the educational part of counsellors' job.
- developing psychological interventions, especially individual counselling in order to help young people knowing themselves better, making the right plans for their future, the counsellors being able to follow their progress in social and vocational settling.

So it can be said outstanding evolution leads *Information* and *Guidance* services to play an increasing part as technical counsellors and teachers' guidance trainers at school level, as reception center and vocational and personal counsel at individualistic level, as resource and exchange center for every economic and social partner in terms of training-employment intercommunication.

RECENT DEVELOPMENTS IN THE EDUCATIONAL SYSTEM

by
M. Rangel

Towards the close of the 4th International Conference in November 1984 it became increasingly clear that several members were concerned with the issue of growing unemployment in their respective countries. Two years on this trend is still on the increase and forecasts for the 1990s are pessimistic. As we are now all familiar with the contributing factors I would like to discuss some of the current developments affecting the vocational guidance of young people in the light of two factors:

—changes in the occupational structure

—reduction in 'real' jobs

The emphasis in Britain is being seen largely in the areas of vocational education and training both in school and beyond the statutory school leaving age (16 years) in colleges of continuing education, work experience with employers and other sponsors. From this autumn all vocational qualifications will be brought under the auspices of the newly formed National Council for vocational qualifications. At the same time a major change in the examination system of mainstream general education is taking place. The familiar GCE and CSE exams are being replaced by a single GCSE examination.

I am aware that for some colleagues here vocational studies are a familiar facet of their education system so from them I ask for a patient hearing.

Developments in School

A variety of options have been introduced into the school curriculum for the last two years of secondary education. Two of these deserve examination and should provide a flavour of the common features of similar vocational courses.

The Technical and Vocational Education Initiative (1983) was a response by government to promote technical and vocational skills training relevant to the needs of industry, for both boys and girls. It is a four year programme which offers integrated work experience, negotiated project work and assessment and regular guidance and counselling. Pupils receive a nationally recognised qualification which permits them to continue in further full-time education beyond the age of 16.

The success of the first intake will not be known until September 1987 but some impressions might be gained from the increase in number of Local Education Authorities taking part over the last three years; 14 in 1983 and over 90 in 1986. The value of this non-traditional approach to learning is, I believe, reflected in the increased resources being made available by the Department of Employment at a time when funding in education is generally being reduced.

Pupils' reaction to the project reflect enthusiasm for the course content and

positive attitudes to sharing responsibility for making decisions. Perhaps the most revealing indicator of success is the high percentage of pupils who were motivated to continue in full time education beyond 16 (i. e. 60% in Birmingham.)

An alternative option offered in conjunction with traditional subjects is the BTEC pre-vocational course. Within nationally established guidelines schools are encouraged to cater for individual needs. In practice, however, the flexibility is bound to be subject to the constraints of teachers' interests and local resources. The curriculum is intended to provide specific opportunities for pupils to acquire and develop personal skill and knowledge which relate to the local and wider community, physical and cultural environment and political and economic structure. (1)

Although the course is designed to include the total ability range there are reservations that it may be seen as an alternative curriculum for those with low attainment and other social disadvantages since those with higher attainment levels tend to opt for the traditional academic subjects. Teacher reactions from one school confirmed that the personal and social development of pupils was reflected in their improved overall confidence and ability to communicate with adults. They had all secured permanent employment by the end of the 5th year.

Developments beyond School

Until the mid 1970s most school leavers entered paid employment and learned the necessary vocational skills 'on-the-job'. With the steady decline in employment those who were least successful in obtaining direct employment were frequently also the least qualified and least able. Remedial action took the form of short-term training (3-6 months) consisting of extended general education and specific vocational training. Those early initiatives became formalised into one and two year programmes for all 16 year old school leavers with the result that entry into employment looks set to be delayed until 18 for the majority. Two types of training will be discussed under this heading, i. e. full time college-based and part or full-time employer or sponsor based schemes.

As a one year course the Certificate of Pre-vocational Education (CPVE) is a response to industry's criticism that young people seeking work are inadequately prepared for employment and lack the appropriate attitudes. Coupled with it is the growing realisation that .. 'a poorly trained workforce is a waste of one of the nation's most valuable assets. . '. (2) The course is aimed particularly at young people who do not wish to pursue an academic course and/or may be uncertain about choice of work. Using the modular approach it provides 'tasters' in five vocational subjects and ten 'core' skills which may be 'transferable' to any occupation. To achieve its aims CPVE is, I believe, dependent upon the co-operation of employers in providing work experience advice and support to local schools and colleges.

The Youth Training Scheme (YTS) now in its third year has probably received the widest publicity. Originally designed as a twelve month scheme and more recently extended to two years, it is intended to provide quality training, a permanent route into the labour market, some financial reward and a nationally recognised qualification. The one year Schemes are divided into two types. Mode A which is employer based, caters for both the employed and unemployed and forms 70% of all training places. The remaining 30% Mode B places cater for the unemployed and take place in Training Workshops, Information Technology Centres, and

Community Projects. Already there is criticism that YTS is becoming a two-tier system with Mode A attracting the more able and a majority of the indigenous population, while Mode B is being filled by the relatively less able, those with social problems and a disproportionately high percentage of trainees from ethnic minority groups. If this is so it is necessary to ask whether YTS is defeating its original aims of improving the chances of the least competent who were singled out as in most need of help? Reactions from young people are mixed. The diversity of managing agents and sponsors is reflected in the wide ranging quality of training provision. Trainees have secured employment through YTS but statistics suggest that the numbers are declining. (3) For those who have been unsuccessful in obtaining employment financial incentives are offered to promote self employment and wage supplements are offered for twelve months to encourage employers to keep trainees on.

While the above mentioned initiatives are encouraging and go some way towards improving the probability of some young people obtaining employment they pre-suppose the availability of work for those who are appropriately trained and willing. The question of acceptable alternatives for those who constitute the difference between supply and demand is repeatedly and carefully avoided.

Effects on Vocational Guidance

If young people are to benefit from recent developments in the educational system, they and their parents need to be guided through the maze of rapidly changing and confusing options by informed and impartial counsellors. Guidance should therefore be made available at the earliest and all subsequent decision points to ensure that traditional attitudes to subject and vocational choice are replaced by equal representation of the sexes across all occupational areas. (4) Young people must be encouraged to adopt a flexible approach to vocational choice and avoid early specialisation because of the increasingly competitive opportunity structure.

As a link between trainees, educators and employers, careers officers find themselves in a potentially strong position to inform each group of the interests and needs of the other and to contribute to the curriculum and related issues. (5) They have, I believe, a particular responsibility to influence the attitude of employers and trainees in their expectations of young people so that the concept of 'equal opportunity' becomes a practical reality for all those seeking employment.

Finally, I believe that Careers Officers and in particular those affecting policies owe it to themselves individually and to the profession collectively to capitalize on technological aids such as computerised systems to make more efficient use of resources. So far resources have not kept pace with the increasing demands of the job and are unlikely to do so in the foreseeable future. It is therefore necessary to recognise the need to prioritise workloads if Careers Officers hope to gain any personal or professional fulfilment in these times of economic and social change.

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TENDENCIES OF EDUCATION AND THE EMPLOYMENT SYSTEM IN THE FEDERAL REPUBLIC OF GERMANY AND THE SIGNIFICANCE FOR VOCATIONAL GUIDANCE

by
Karl G. Zenke

As a participant in the 5th Conference on Vocational Guidance I would like, first of all, to point out some tendencies that have become evident in West Germany's job market and in the system of education and then to question, on the basis of these tendencies, the matter of job counseling.

Since the developments which I shall outline are probably quite similar in most of the countries that are represented, I hope that my report will offer a compelling reason for us to exchange information on programs and experiences so that progress can be made to overcome many of these general problems so visible today.

It is clear that changes in education and the labor system (job market) govern the way in which vocational guidance approaches its problems. Regarding the *educational system*, the following important factors are involved:

- Over recent years, people's *expectations of education have increased.* In 1965 7% attained "Abitur" (qualification for university admission), and 15% were graduates of middle schools, whereas in 1985, "Abitur" increased to 30% and the number of middle school graduates was almost the same.

Consequently, demands for vocational education and vocational guidance have become more varied. After attending school for a longer period, young people approach counselors as more mature, introspective and critical individuals. Their *independence has grown* and as such the influence of parental guidance in occupational decision-making declines.

The handicap of a tradition which tended to keep separate the school system from that of labour or occupation has largely dissolved over the last 20 years, with the emergence of studies in polytechnical education. These have contributed very substantially to a systematic preparation for occupational selection. This field has now been incorporated into the curriculum of every secondary school in the country. Thus, the traditional isolation of teachers from vocational counselors and vice-versa, has declined significantly. Students, teachers and parents now have a much *greater understanding of the importance of vocational guidance* and consequently there exists a greater cooperation between teachers and counselors in this area.

As a result of student's having more background information when investigating jobs, occupational education and working places, counselors are required to answer more diverse questions and collate more professional information.

A number of empirical studies have shown that, when better information about jobs themselves and the job market has been offered, there is a corresponding *change in what young people value most in a job.* Whereas formerly the realization of personal likes and interests were among the highest values, now *opportunities for*

the future, that is advancement and *job security, are number one.* Income is only named in 2nd place followed by the wish for good social ties at one's place of work.

Our knowledge today about development in the job market lets one assume that within the public concience the value, in general, of a secure and at the same time proper place of work is much higher. Certainly two factors have added to this:

On the one side, the *continuous unemployment* of over 2 million people for several years, on the other hand, the fact *that new technologies keep contributing to change at the place of work.*

More and more, employees must continuously strengthen and expand their professional qualifications throughout their career if they do not want to lose their job. These general insights do reach the young people thanks to the media, to family discussions and to talks within the schools.

In the past, the system of vocational schools and high schools in Germany was treated rather like a "stepchild" of the educational politic, but recently, that is since approximately 1970, the Federal Republic has striven for quantitative, qualitative and structural improvements of vocational schools and technical high schools.

Whoever completes successfully his/her education here, has a good chance of obtaining a secure place of work. There is of course a natural consequence to the process of choosing a profession from this differentiated system of vocational schools. Those who receive information on the different modes of education gain insight into alternative ways of becoming qualified for future employment.

Finally we have also to notice the *development of student numbers.*

As a whole the number of students will *decrease* tremendously:

1983	12,2	millions students
1992	8,3	
2000	8,7	

This development will also effect the number graduates: It is estimated that by 1994 there will be 40% fewer students who will graduate from general educational schools than was the case in 1983.

By 1994 there will probably be 30% fewer students in the vocational schools. Also, the number of students with the "Abitur" will decrease by 38% between 1983 and 1997. *Now to a few developments in the job market.*

For the moment it does not look our modern industrial society is out of work. The problem lies in that even with a slow decrease of the social work volume, work as productive *work* still determines the social structure, but at the same time it *changes its "social face"* substantially.

What do I mean by the expression "social Face of work"? I am borrowing here a concept of the sociologist Martin Baethge (Göttingen) who understands by this term the *connection of work-conditioning social structure of the complete society and the social behavoir of each one* who is influenced by work.

Earlier this social work led to relatively clear social levels and classes with corresponding social behavior. The new developments however lead to the dissolution of these lines of demarcation. *Individualization follows.* I must explain this briefly.

Under the pressure of unemployment and increasing rationalization, the development of the social structure up to now has been fractured. Instead of an upward movement toward higher standards of living and social equality, there will be a noticeable *increase in social inequality. Work and life conditions will be polarized.*

On the one hand, the part of highly qualified working people will for the time being increased; on the hand, there will continue to be unemployment and a growing number of labourers in unstable, unqualified, poorly paid and poorly developed working conditions. Therein is substantiated the assumed change of "social face" of the work: *The norm-setting power of work is decreasing overall, but at the same time the individualization within the work and professional behavior is rising.* The first tendency is the result of a shorter period of work. Young people are starting their training and thus work much later.

The second tendency is a result of the *sharpened competition* to obtain secure places of work. Also the selection in the transition from school to training and profession becomes sharper. Higher education will become much more important.

In view of the above mentioned facts we can assume that the interest in and acknowledgement of problems by young people concerning questions of career choice and career training has increased and that tendencies towards selection will be become a veritable contest and a struggle of all against all.

How do the new prognoses view the *development of the number of working people* and the *qualifications needed* in the future?

A recent survey analysed how the workers in each economical sector will change by the year 2000 and what qualifications will be expected of them.

Sector	1980	1990	2000
Manufacturing, Maintenance	9.87	8.61	7.96 million
Tertiary industries	15.11	15.50	16.36
Service industries, Warehouse, transportation	4.42	4.09	3.96
Office work	3.18	3.08	3.05
Research & development	2.49	2.95	3.56
Services	3.67	4.03	4.44
Education	1.27	1.15	0.96

Demand for labor in the field of manufacturing and maintenance will evidently decrease while there will be an incline in demand in service industries, research development and planning.

Even within the so-called "future" qualifications drastic changes are to be seen. Without doubt this point is of great import for proper vocational guidance for the future.

The need for laboures without a formal graduation from a vocational school (so-called unskilled workers) will fall from 30% in 1982 to 20% in 2000. The need for skilled workers will increase from 53% in 1982 to 60% in 2000.

The need for graduates from trade and technical schools is expected to stay constant at 7%. The need of academicians should also rise from a figure of 8.5% in 1982 to 15% in 2000. Thus one can see a distinct tendency toward higher qualification.

At the same time it become clear that a considerable amount of labourers will fall out of the qualification process altogether.

My assumption of general instability mentioned above is based upon political tendencies to loosen social and proper work security for the employees.

Significance for Vocational Guidance

If society wants to prevent the above mentioned inequalities and social polari-

zation, incisive measures will have to be taken by which career counseling would have to adopt important functions:

General basic education would have to be expanded.

Qualified career education for everyone would be a social necessity. For that career counseling would have to plan and select thoroughly.

The existing potential of qualified work would have to be distributed more fairly, for example through a shortening of the span of years in which one works, abolishment of overtime work, sharing jobs, and time for further education and professional development.

Considerably more vocational guidance will be necessary in the future. Statistic calculations or predictions can only forecast general tendencies with a limited degree of accuracy, but it is nevertheless clear that reinforcement of the preparation for systematic vocational guidance should be given more importance from now. The same thing can be said of the necessity for improvement of general education.

Even though education and career opportunities are improving in general, *career counseling has to address especially the less qualified students.* Their transition into training and jobs is endangered by the aforementioned instability.

For this reason, counselors will be requested to select an educational program, and an occupation suited to the requirements of the individual. *Thus, testing methods such as the Fukuyama-Profile (F-Test) in the occupational selection process, will acquire more importance.*

The responsibility of vocational guidance will be greater. As the age of the individual increases and the level of education at graduation from school rises, students will themselves select their occupations.

Whereas, parents commonly used to participate in the process of their children's job selection, today, young people look forward to the benefit of professional advice in the form of counselors or teachers.

The decrease in the number of students has made the securing of occupational trainees by businesses more problematic, and the sortage of suitable individuals has led to a competitive element in industry as far as the selection of trainees is concerned. Each industry depends in its employment of new trainees, on the channeling by vocational counselors of young people into its particular industrial sector. This situation may have the unfortunate effect of intensifying the tension in counseling between consideration of individual interest and those of the national economy.

At the same time, counselors must be cooperative with schools so as to protect the students from making errors in connection with job selection and from embarking upon a vocational path which is inactuality only a passing interest.

Any occupational recommendations should be based upon long-range forecast. Public work will increase in general. An evident tendency toward higher level education and qualifications indicates that vocational guidance should work in harmony with schools, and emphasizes the importance of a general and basic vocational education for all young people.

Continuing unemployment, technical changes and the loss of employment by adult labourers because of these technical changes let us surmise that the *job counseling for adults is gaining in meaning.*

The mere creation of new jobs will not solve the problem.

Adults will have to

be motivated to begin new professions,
be informed about new training possibilities,
be supported in their program of training,
and be assisted specially as regards local mobility.

To remedy these problems career counseling in Germany has to develop new methods.

The above specified figures indicate that 20% of the workers may have difficulty in getting suitable jobs, and thus have trouble making a living.

Qualification levels will rise in the future and both social and individual problems may result. Vocational guidance should cope with the problems via cooperation with other social services.

PEDAGOGICAL TECHNOLOGY

by
Hermann Röhrs

There is a good deal of talk at present about how we live in the era of technology or the age of the computer. This opinion is greeted with both agreement and criticism. The counter-arguments to it are generally connected with criticism of technology as it has been formulated since the rise of the machine age. However, it receives a new accentuation, one not to be overheard, because of the stirring fact that for the first time in history man is master of technical powers which are sufficient to destroy the earth and everything living on it, or with the aid of gene technology to put in motion the work of further creation, which was a always potential feature of technology and which gave it from the beginning the semblance of a demiurge. Since both ways are mutually exclusive, it becomes essential, for human existence, to support the hope of strengthening and safeguarding life which is allied to technology, and to strengthen self-criticism in such a way, that the function of serving human life is made an obligatory standard.

Human expectations and hopes, too often deceived in the day-to-day business of politics, are directed by choice towards school and education, both of which must, within the medium of educational programming, look towards the morrow as their target. In the expectation of this, the school in particular is regarded as an instance of transformation for technical development. In fact, the school and the education to be introduced from the school represent an effective instance, which, through the deployment of understanding, knowledge and ability, are able to establish a tradition. This process basically requires support from parents and public if it is to bring a lasting effect to maturity.

In view of this situation it must be all the more thought-provoking that the vigorous attempts to achieve a scientific breakthrough, with the aid of the social and natural sciences, which in view of the complex character of technology are chiefly arranged in an inter-disciplinary way, should take place to a great extent without the cooperation of educational science. Regarded from the structure of the area to be illuminated, the vacant space left by educational science is incomprehensible. The actual reasons are rather to be sought in the stage of development of educational science, which has not concentrated sufficiently as a scientific discipline on technical and industrial reality. And it is not possible to be deceived in this by the fact that a spectrum of methods of didactic procedure – from media didactics to programmed instruction and computer-supported instruction – have been developed. What is lacking, however is an original instance of research, which illuminates the technical and industrial area of life from the educational point of view, so as to deduce its own properly-based principles of education. Educational science is not a branch of philos-

ophy, sociology or social psychology; thus it cannot receive the scientific perspectives for its work from this side. Educational science must rather pose its scientific questions, in view of the key function to be attributed to the problem of education, on its own responsibility and safeguarding its specific method of observing, within the reality of technological life. Only then is it able to take up the scientific dialogue with technological philosophy, sociology and so on. Otherwise the impression remains convincing, viz., that educational science is simply a means of applying the findings of these disciplines.

What is needed for this is the setting-up of pedagogical technology as a special discipline, devoting itself wholly to the complex field of technological development and its pedagogical relevance. As the increase of special educational tasks has led to the establishment of social and remedial education, economic and professional education, and sport and peace education, in the same way the field of technology, with all its levels, demands, with regard to possible educational interventions and to didactic transformation in instruction and education, a special discipline in the form of pedagogical technology.

In this there is no lifting of the demand that the formulation of technological problems should in future, like the tasks of social, peace and sport education, be thought out and carried out in the context of general education. It is a sign of faulty calculation, if representatives of educational science, whether through inadequate self-criticism with regard to the limitations of their own contribution, or through aversion from "hyphen-education", or whether through political opportunism in education - take the view that the establishment of a special discipline is not necessary, since these questions must be kept within the general scientific context. This interpretation reveals, firstly, a questionable ignorance of the development of science in our age, which makes specialisation appear unavoidable, in order to do justice, in scientific terms, to the great questions of our time such as peace, technology, corporeality. Secondly, it fails to recognise that any specialisation in the area of education, corresponding to a properly-based scientific concept, is conceivable in principle only if the general scientific question is preserved, since what is in question is the whole man and not qualities or capacities capable of being isolated.

Given these preconditions, pedagogical technology is to be understood as a scientific specialisation within educational science. After the relatively early development of a draft (Röhrs 1973: 279), it now requires to be established, if the urgent tasks of the world of technology are to find an appropriate solution in terms of educational science. Pedagogical technology has to create within itself a division corresponding to the structure of the field to be illuminated. Thus, besides a philosophy of technological education, which by analogy with the technological philosophies, inquires from a pedagogical point view into the meaning of technology, its function and relevance for education in the stages of development of human life, a design for elementary technological education will have to be developed. To make technology elementary (in the educational sense) is to give an exemplary presentation of the leading principles for the various stages of development.

The question whether technology in the school should be presented in a special technology lesson or in the manual-work lesson and in other lessons such as physics, chemistry, German, history and so on, in the light of the dynamic and the importance of the subject, must be answered starting from the point that beside the established

manual-work lesson, all other subjects must remain open for discussion. That technology has accompanied human development on this planet from the very beginning, and that man's thinking, planning and inventing are to a large extent motivated by technology, is a reason to provide, in history, social studies and science lessons, a historical digression on the development of technology, especially singe the source material is literally waiting to be presented educationally.

Another important area of research is the pedagogical development of the mass media such as radio, film and television, under the triple aspect of: 1) a critical analysis of the mass media with regard to the image of man they chiefly present and the educational ideas by which they are guided; 2) development of well-based standards for the pedagogical organisation of the mass media; 3) impulses for and realisation of radio, film and television series independently, whether for school, university or the public. The guiding principle here should be the attempt to unite dramatic empathy, artistic understanding and congenial intuition with images of education, in such a way that they appeal to the person in an original manner.

Undoubtedly it is not only the simple exploitation of the media in education which is in question. Fundamental mutual interaction can hardly be avoided. As the concept of education expands structurally by inclusion of the problems of technology, in the same way the intuitive idea and the educational relationship will experience an alteration. Presentation through the media, be they film or television, means the inclusion of a part of the reality of life, organised in terms of the drama (film); and this needs a new didactic working-over. Together with the content, the principles of organisation must also be discussed, for only standards established in this way can mature. It is precisely the young who have a deep-seated understanding of the dramatic aspects. Only within this framework is the right precondition to be found for the analysis of the content and the problems, since every instance of employment of the media must be at the same time an education in the rational use of them. This does not exclude an occasional inerpretation of a medium by itself, to the extent that it has prepared its "message" so clearly that it prompts questions without false expectations. To this extent McLuhan's dictum that "the medium is the message" requires, within the pedagogical framework, a critical examination on each occasion with regard to the didactic locale and the educational effect.

Television alone is a factor for socialisation of no less influence than the school. It is thus crucially important to observe critically its relevance for education (and adult education) and by influencing it, to enhance it in such a way that it can become a factor in education. Under this aspect should be criticised the excessively numerous broadcasts in which cruelty and murder set the tone, since they make a destructive attitude to life seem normal, since they are so frequently presented. It is particularly unjustifiable that crime series, with their ingredient of aggression and cruelty, should be broadcast early in the evening, when they are accessible to children, while broadcasts more demanding culturally, which can appeal to children and young persons, are planned for the late evening or for the nighttime. It is still too early to estimate the effect of the broad, newly created field of video films, whether home-video or in video lending libraries. The new "video nasty" which ensues as a result, with its mixture of horror, cannibalism, zombies and shameless pornography, ever increasing in a vicious circle, has been brought under control far too late and to a limited extent. It would be of importance to examine continuously the effect of broadcasts of cruel

actions and actions of questionable morality on young people. It cannot be doubted that programmes of this type can exert a relativising influence through their ubiquity. All the theories discussed in this connexion can give only partial answers. This is as true for the theory of release as for that of catharsis. Thus, taking part in cruel activities on television will not produce cruel or criminal behaviour in the viewer. What is decisive is the genesis and disposition of the personality, and the environment with its basic moral standpoint which can be experienced in an exemplary way. In a completely similar way an effect of catharsis can come about, to the extent that the scenes of violence and horror are contemplated reflectively but distantly (Röhrs 1973: 288; Scarbath 1984: 55). Whether the framework of effect leads to a convinced withdrawal or to a dependent addiction, is, in the last analysis dependent on the basic personality and on the motives of life, so far as the latter can be experienced. What must be avoided is that young people should grow up into two unconnected cultural worlds; one of them the traditional culture, accepted and furthered by parents and school, and the other the world of technology, which is of course made use of but at best merely tolerated in its function as a provider of services. As a result the two-culture system (Snow 1969), which arises everywhere in one culture, could be enriched by a further variant which could be all the more ominous in its effect, since the influence of technology increases and requires critically expert participation.

For this reason it is completely appropriate to consider whether the school should limit itself to promoting guidelines and regulations for familiarity with the media or whether it should incorporate the media themselves as a means of educational instruction. The answer, however, results from the fact that the one is possible only with the other. Consequently, a priority should be recognised in the common development of regulations, which are of urgency in a world determined by means of mass communication. A more general educational goal of these efforts must consist in overcoming both a basically negative evaluation and an unreflecting "technologism", and to replace them with a critically evaluating (and thus justified) relationship, which is able to assist in organising technical development with knowledge and judgment in the direction of evaluation of technology.

To this complex belongs also the critical discussion of coinspection, which allows, both for teacher-training and for research, the possibility of observing the students' experiments in teaching as well as the analysis of methodological and educational relevance of various styles of teaching within a variable and controllable environment. The process of adapting micro-teaching and minicourses, with critical appraisal of the experience gained in the research centres in Stanford, Berkeley and Austin (Röhrs 1972: 60, 96; Zifreund 1978) should be continued. The technical medium proves, in all these cases, to be highly susceptible of modulation; it thus allows not only the practice of teaching and technical skills but also the awakening of understanding on the basis of pedagogical insight as the result of detailed scientific analyses.

In the area of technological instrumentation, programmed instruction and didactically motivated familiarity with the computer and with information technology require scientific explanation. Even if the great expectations, which in the 1960s accompanied the first entry of these media into American schools and some years later in more modest measure into Europe, have been succeeded by disillusionment they demand all the more an empirical examination with regard to further testing. Against the background of available experience the first evaluation of programmed instruction

as a teaching medium which can considerably reduce the teacher's burden or even replace him, has proved to be an over-estimate. What has remained is the recognition that programmed instruction can provide temporarily limited relief and possibly also enrichment, insofar as it fits didactically into phases of instruction in which independent work, whether individually or in groups, seems educationally appropriate.

With the further development of information and computer technology similarly inflated expectations have recently been aroused. A realistic view with regard to the possibilities of didactic solutions to be expected can be provided by a critical survey of the research institutes established as early as the 1960s and their results, as for example by the "Learning Research and Development Center" in Pittsburgh, established in 1964. Under the direction of Robert Glaser, who is to this day one of the leading investigators in the area of integration of the computer into the field of education, the results of the laboratories and of the Oakleaf experimental school in Whitehall, a suburb of Pittsburgh, can have a reinforcing effect for further development (Röhrs 1972: 50). As a general answer it may be stated that a computerised school is not to be expected in the foreseeable future, but that information and computer technology in didactically purposeful operation give decisive support to the individualising of instruction, which is capable of being established in accordance with the proficiency profile in differentiated setting of tasks. To what extent this instruction can support learning in the sense of finding out is to a great extent a question of imaginative development of software; a process which should be open for the critically processed experiences of the students.

The area of tasks of pedagogical technology, considered from the standpoint of the more general inquiry, is closed on itself. What must be preserved is the general pedagogical direction of the inquiry, so that no formation of a technological enclave is created with the authority of pedagogy. Corresponding to experiences gained hitherto, the danger must not be underestimated that in a reverse effect of computer literacy the conventional techniques of communication, such as speaking, reading and writing, will begin to decline. The prospect of a computer-conditioned loss of culture is in no way deprived of real value in experience. The often-discussed humanisation of technology must be matched by an integration of the principle of technology into the socio-cultural framework. In view of the great importance which accrues to the educational and ethical penetration of technology for the post-industrial society, the question should be raised whether certain model schools with an emphasis on technological education can promote this development. Such schools must not relieve other schools from the function of introducing students to the problems of the technical world; they should rather develop exemplary didactic procedures and make available to other schools their experiences, scientifically elucidated. The establishment of such model schools could make use of the experiences won in the USA, England and recently also in France in an audio-visual school as a Collège d'Enseignment Secondaire in Marly-le-Roi near Paris (Terry 1984). It should, however, be clear in advance, that the incorporation of the new media in the school cannot take place additively; the didactic goal must rather be a reshaping of the learning process as a whole. In this way there will also be no isolated education in information theory or computers; both are to be considered as constituent parts of education as a whole. Only a technology, penetrated intellectually by its principles (which include making conscious the aesthetic and anthropological dimension which are proper to it) can be humanised and thus be an integrating con-

stituent of education.

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VOCATIONAL ORIENTATION AS AN INTEGRATE PART OF THE SOCIALIST GENERAL EDUCATION IN THE GERMAN DEMOCRATIC REPUBLIC

by
Anselm Siebel

In the German Democratic Republic there is an intensely humanist request for preparing the students of the ten-year general polytechnical school thoroughly for life, work and profession and for supporting them systematically in choosing their career. That is brought to successful issue by a high quality of the whole training and education, by teaching a substantial and available knowledge and skill, fundamental understanding of the associations in nature and society, by the development of all-round interests and attitudes in learning and working being of great value for the society.

The contents of the up-to-date socialist general education guarantee the education for all citizens, which they need by all means and it enables them to take part in all social concerns in an independently thinking and responsibly acting manner including the choice of career. Part of it is also the creation of a thorough foundation for the vocational development of all school-students as well as for the availability necessary during their future employment. The importance of the socialist general education for the vocational orientation follows from providing an education which falls to all children's share of our people and is a recognized prerequisite to make use of the opportunities, based on it, for being skilled workes, technical school, college and university graduates.

That is promoted by the responsibility of the school for shaping and developing realistic desires of a profession and for making a free and conscious career decision.

The concept of the socialist general education in the German Democratic Republic takes into consideration the unity of solid knowledge and skill and socialist convictions and manners of behaviour.

Vocational orientation as an integrate part of the socialist general education consequently includes an educational and an informative side. Above all the educational side includes:

- the systematic development of the student's interests including the shaping and stabilizing of professional interests and likings
- the development of a correct attitude of the social demands and possibilities being connected with the choice of career
- the aptitude of the young people really to value their own prerequisite to the choice of career and to make out the necessary conclusions for the further learning and social activity.

Regarding the informative side of vocational orientation the socialist general education in the polytechnical school of the German Democratic Republic deals with providing fundamental orientations concerning the importance of choosing a career, the conditions and course of the choice of career as well as supplementary possibi-

lities for training.

By that the young people are given an individual shaping of their intended choice of career dependent on the structure of their interests, motivations and activity in connection with concrete information about the choice of career and professions arranged by parents, enterprises trade unions and vocational advisory centres.

Concerning this the polytechnical instruction, especially the subject "Introduction into socialist production" in grades 7 to 10 and above all productive work itself, organized for pupils attending grades 7 to 10 in enterprises and socialist cooperatives, is very important.

New curricula offering also better possibilities to fulfil the educational and informative side of vocational orientation were introduced.

The educational side of vocational orientation is met by the following pedagogical arrangements during the polytechnical instruction:

- the students' responsible participation in solving tasks of the material production meeting the demands of the curriculum
- the development of fundamental traits of character and practice to work and, linked with it, the students' ability really to estimate their prerequisites to choose a vocation
- the shaping of understanding for the coherences of the national economy and the production process and the consequences arising from them for the social needs and possibilities to choose a vocation
- the systematic development of vocational interests in those students having already formed concrete ideas of their profession.

The informative side of vocational orientation includes the following arrangements during the polytechnical instruction:

- the teaching of technical, technological and economic facts and, linked with that, the demands on the working people in various vocations
- the students get to know various vocations by working in the material production
- the students get further information about the tasks of the enterprises, about their products, their social and cultural arrangements as well as the vocational training.

As our experiences show the integration of vocational orientation into the contents of up-to-date socialist general education promotes the shaping of professional desires corresponding to individual prerequisites and social needs. By that the joint relation between life and the whole training and educational process is increased and real perspectives for their further way of life are revealed to the young people. One of the axiomatic suppositions for realizing it is the permanent protection of peace on the basis of detente and disarmament.

THE FUKUYAMA PROFILE ADMINISTRATION IN HAWAII 1982, 1985 AND 1986

by
Evangeline K. Barney

Introduction

In 1973, a joint research project was initiated between the Hawaii State Department of Education and Ashiya University. This project included the administration of the F-Test for Appraising the Ability to Choose Methodically Among Occupations to junior high school students (Grades 7, 8 and 9) in Hawaii. The F-Test results were used primarily to compare the levels of attainment of career guidance objectives by students in Hawaii and Japan.

In 1982 the F-Test was renamed the Fukuyama Profile and revised to sharpen its use as a counseling tool as well as an assessment instrument in reviewing a school's guidance and career education program. The Fukuyama Profile was designed to facilitate the processing of the data so that the index scores would be readily available and used for counseling individual students. The Fukuyama Profile also enabled computerization of data such that information for program review also would be readily available.

Dr. Lawrence Inaba, Director of Vocational Education, State of Hawaii, has completed and reported to past Conferences on the longitudinal study of the Fukuyama Profile in Hawaii. This report is not intended to continue or parallel Dr. Inaba's comprehensive study. Rather this report will attempt to:

a) Review the Fukuyama Profile data in five (5) schools for the years 1982, 1985 and 1986;
b) Make some observations regarding the data; and
c) Provide insight as to how the data can be used to augment the guidance and career development program review process at the schools.

This report has been confined to the five (5) schools who have been administering the profile since 1973 and whose teachers using the instrument have remained unchanged. The administration years were selected because 1982 was the last year included in Dr. Inaba's longitudinal study and for 1985 and 1986 computerized data became available for review.

Self-Analysis Index

Self-analysis data are indicative of how a student perceives himself/herself in terms of personality traits listed in the Fukuyama Profile. If index scores are above 85, it can be surmised that students are sufficiently aware of their own personalities. Table A following reflects the self-analysis indexes for the five (5) schools:

TABLE A

Self-Analysis Indexes

	1982			1985			1986		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
School A	97.0	97.4	97.2	98.1	98.8	98.5	96.9	98.5	97.7
School B	95.9	93.8	94.9	96.1	95.1	95.6	95.1	95.8	95.4
School C	96.0	95.6	95.8	94.4	94.6	94.5	93.3	98.0	95.7
School D	93.3	93.3	93.3	96.7	95.5	96.1	95.6	98.2	96.9
School E	94.0	92.1	93.1	97.1	98.0	97.6	98.2	96.4	97.3

There appears to be little significant difference with regard to the self-analysis scores for the five Hawaii schools. The fluctuations are negligible — the greatest point difference between any two (2) given years being a. 8 decrease from 1985 to 1986 at School A. In short, the schools appear to be doing a good job in helping students understand themselves and become perceptive about their own personalities.

Job Analysis Index

Job analysis data provide information about how well students are informed about the requirements of an occupational interest area of their choice. More specifically, the data indicates how well students know about the personality and skills/ traits needed for occupations in a selected area. The standard index for Job Analysis is 60 index points.

Table B following reflects the Job Analysis indexes for the five (5) schools:

TABLE B

Job Analysis Indexes

	1982			1985			1986		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
School A	65.1	69.5	67.3	59.7	68.8	64.3	62.9	65.7	64.3
School B	65.6	65.0	65.3	69.8	67.8	68.8	69.9	70.1	70.0
School C	68.5	68.6	68.6	65.3	67.0	66.2	56.6	62.5	59.6
School D	67.6	68.2	67.9	66.7	65.1	65.9	62.1	65.5	63.8
School E	67.4	65.2	66.3	73.8	68.3	71.1	56.0	59.8	57.9

In this area, Hawaii's students do not appear to be doing as well as might be anticipated. In 1978 the total mean scores had stabilized to an average of 66.0 index points. In 1982, four (4) of the schools had even surpassed the average score.

However, in 1986 only one (1) school had surpassed the 66.0 average. All others had dropped or decreased in index scores. More alarmingly, Schools C and E had dropped 9.0 and 8.4 respectively from 1982 to 1986. There is no known cause of explanation for these sharp decreases. Because the Department of Education has been steadily mounting its efforts to familiarize teachers with requirements of occupational areas, the falling scores demand review and attention.

Occupational Selection Index

Table C following provides the data for the occupational selection index scores for the five schools:

TABLE C

Occupational Selection Ability Indexes

	1982			1985			1986		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
School A	76.3	80.7	78.5	72.5	78.1	75.3	68.0	69.4	68.7
School B	74.3	75.3	74.8	74.7	76.7	75.7	75.2	78.5	76.9
School C	70.0	69.4	69.7	73.4	71.3	72.4	65.5	70.3	67.9
School D	73.3	76.0	74.7	72.3	71.8	72.1	71.3	75.2	73.3
School E	70.0	68.8	69.4	74.5	71.0	72.8	72.1	71.7	71.9

The occupational selection index reflects a summary of the self-analysis, job analysis and occupational tryout indices. This index is especially significant because it represents the level of a student's understanding and application of the Fukuyama Profile process — the process of:

a) appraising oneself;
b) acquiring as much occupational information as possible; and
c) obtaining as much actual hands-on experiences as possible in an occupational interest area.

An occupational selection index score of 75 or more indicates adequacy in this category. The Hawaii data shows need for improvement in student understanding of the career development process. Four out of the five schools failed to attain the standard index score in 1986. The drastic drop from 78.5 in 1982 to 68.7 in 1986 at School A needs to be reviewed and monitored. One could speculate that the basic components in the career development process are not being systematically integrated and coordinated.

Personality Tendency and Appropriate Occupations Index:

This index reflects how well students understand and are able to match their personality traits with those required by their tentative occupational choices. Index scores above 75 mean that students have:

TABLE D

Personality Tendency and Appropriate Occupation Indexes

	1982			1985			1986		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
School A	70.5	71.5	71.0	62.4	64.7	63.6	67.7	69.4	68.6
School B	63.6	72.3	68.0	70.2	70.0	70.1	73.9	75.9	74.9
School C	67.4	65.6	66.5	61.4	70.3	67.4	64.5	63.0	63.8
School D	66.0	68.5	67.3	70.0	63.9	67.0	66.5	70.0	68.3
School E	68.8	68.5	68.7	56.6	60.1	58.4	58.6	55.5	57.1

a) attained sufficient understanding of the job requirements in their chosen occupational interest areas; and

b) analyzed their own strengths and weaknesses in the selection process.

Hawaii's scores as shown in Table D following indicate that all five schools need improvement in this area. Students need help in the matching process — that is, matching their traits to the requirements of an occupational area.

Hawaii's scores have been consistently low in the personality tendency and appropriate occupations index. Other than School B in 1986, for females only, the standard score of 75 has never been attained in Hawaii. This consistency in low ratings suggests that considerable more focus should be placed on insuring that students investigate all the requirements of an occupation. Students need to know more than how much a job pays. They need to know what the job truly entails. The process must be more thorough and systematic than simply saying, "I think I'd like to be a stewardess."

It appears also that teacher knowledge about occupations is not only limited but is not being shared readily and clearly with students.

Some Observations

The following is a summary of some observations relative to the index scores of Hawaii's schools using the Fukuyama Profile:

a) In keeping with the trend found in Dr. Inaba's longitudinal study of 1982, Hawaii students consistently exceed the standard index of 85 for the self-analysis component of the Fukuyama Profile.

b) In the job analysis component, there is need to follow-up on schools that had attained the standard index score of 60 and then, subsequently either fluctuated or dropped considerably in points.

c) There appears to be need for further focus on process rather than selection of an occupation or occupational field.
Inasmuch as individuals tend to change occupations and careers during a lifetime, the ability to synthesize as well as analyze one's strengths and weaknesses in terms of occupational requirements and to participate in related hands on experiences related to the occupational area become crucial.

d) In the personality tendency area, an area in which students since 1973

have continued to score poorly, it might be advisable to monitor how well and how much teachers share their knowledge of occupations with their students.

Using the Data

For purposes of program review, the results of the Fukuyama Profile are used as *one* means for assessing the school's career guidance program. Together with monitoring visitations and data from surveys such as the Student Personnel Services Effectiveness Survey, the Fukuyama Profile provides schools with a base from which the career guidance efforts can be examined.

For example, if extra special attention should be given to the integration of knowing oneself with respect to an occupational interest area, schools need to objectively answer the following kinds of questions:

a) Are teachers incorporating first-hand experiences into the instructional program?
b) Is there more happening in the classroom than textbook work?
c) Does the school have a systematic and coordinated visitation program?
d) Have career shadowing experiences been made available to students?
e) Has the school sought partnerships with business groups that can be mutually beneficial and expose students to a wider than in-school set of experiences?
f) Is there a deliberate program of instruction to help students internalize and experience the career decision making process?

In addition, the new computerized design of the Fukuyama Profile provides each student with a personalized set of data thereby enhancing the counseling component in career guidance.

Summary:

The current design of the Fukuyama Profile including its computerized feedback about each student, school and state has enhanced the utilitarian value of the Profile. The Fukuyama Profile augments Hawaii's many efforts to help students through effective career guidance and career development programs and services.

THE NEW COMPUTER VERSION OF THE FUKUYAMA PROFILE

by
Lawrence A. Inaba

If schools are to develop sound career development programs, emphasis must be given to identifying and promoting the positive characteristics of each student. In addition, career development efforts must take into account the various approaches to career orientation and planning that must be used for each student.

The problem of occupational choice today is not due to the lack of choices, but the abundance thereof. The many directions and choices available often confuse and distract the young people. Hence, the educational institutions must continously search for better ways to diagnose where students are in their career development, and provide the means to help them to gain the necessary experience that correspond to their career development needs. Career development does not merely focus on an occupational choice, but is concerned with the total process by which purposeful and systematic decisions can be made in the pursuit of an occupational choice. It was in this philosophical context that the Fukuyama Profile was developed.

The Fukuyama Profile was first developed in 1949, to evaluate the effectiveness of vocational guidance activities conducted in the junior high schools of Japan. The data derived through this instrument was very instrumental in determining the efficacy of the process of career development in Japan. Subsequently, within the past decade, the Fukuyama instrument has also been utilized successfully as an instructional tool for guidance teachers and counselors. The Fukuyama Profile has been in use in Hawaii for over 10 years, and it has really helped in both assessing and supplementing our career education program as an instructional tool.

With the advent of high technology and the popularity of microcomputer use in the schools, the Fukuyama Profile has now been adapted for computer use. The new computerized version of the Fukuyama Profile has been developed and completed. The computer disks are now available in both Japanese and English and can be used on the Radio Shack TRS-80 models, the NEC models, the IBM P. C. models, and IBM compatible models.

The computerized Fukuyama Profile has been field tested in Hawaii and the evaluation of the product by both students and teachers have indicated high satisfaction with both the use and application of the results. The computerized Fukuyama Profile provides a new dimension to the present paper and pencil model, because the results of the student input are produced instantaneously in printed form. No longer do students and teachers have to wait for the profiles to be scored and returned to the classes several weeks or months later. It is meaningful to students because they can receive their scored and summarized profile immediately. The teachers and counselors are also pleased with the immediate results because counseling help can be provided

to students while the questions that students may have had are still fresh on their minds. The various summarized printouts can also be taken home for consumption by parents. Students enjoy the computer version of the Fukuyama Profile because they can interact with the computer and because it is personalized.

Similar to the book version of the Fukuyama Profile, the students are required to respond to the items listed on Form A and Form B. However, the items on the computer version of Forms A and B appear individually on the screen. Hence, the students will not be able to skip over an item without an appropriate response for each question. The computer program for the Fukuyama Profile is also designed to reject any improper entry due to carelessness. The total data entered on each form can be displayed on the printout, and the index scores after completing each form are also available.

When the student has completed the data entry on Forms A and B, the summarized results are displayed in various forms and can be obtained according to individual needs.

The computer program is also designed to identify school programs or courses that can help the students to gain helpful experiences while in school. The identified courses can strengthen and enrich student experiences, as they pursue their quest to be successful in their occupational interest area.

With the introduction of the computerized version of the Fukuyama Profile, the evolvement of the Fukuyama Test (F-Test) into the Fukuyama Profile has now become complete.

If appropriately used, the Fukuyama Profile can become a tremendous support tool for vocational guidance teachers and counselors.

SOME OBSERVATIONS ON ADMINISTERING THE FUKUYAMA PROFILE IN SCHOOLS IN BIRMINGHAM

by
M. Rangel

I gave the Fukuyama Profiles A and B to eighty three pupils in two types of school.

1) boys grammar school
   age 14-15 years
2) girls comprehensive school
   age 15-16 years

I would like to make a few brief observations of my experience in administering the profiles.

I found that pupils' reactions to completing the questionnaires varied and were influenced by the following factors:-

a) Whether or not careers education was an integral part of the curriculum
b) the sex of the pupils
c) ability level of the pupils
d) home background of the pupils

a) **Careers Education**

Where careers education was included the curriculum pupils were:

- more favourably disposed to answering questions about their choice of work or career than those for whom it was an isolated exercise.
- more willing to assess their strengths and weaknesses and relate them to a long term goal *ie* job or career.
- more imaginative about their choice of career and were inclined to indicate a wider range of jobs or careers.
- more positive about the relevance of their general experiences both in and out of school, to their ideas about work and career aspirations.

b) **Sex**

Sex stereo typing was obvious in both the groups. The girls tended to choose nursing, nursery nursing related caring occupations and office/clerical work. The boys' choices were predominantly related to engineering, science and technology and accountancy.

c) **Ability**

Pupils from the grammar school tended to choose professional occupations requiring high level entry qualifications and training. On the other hand pupils from comprehensive school were generally inclined to choose less

ambitious careers requiring, both lower level entry qualifications and in the main, shorter periods of training.

d) **Home Background**

It is well known from research findings that young people's choice of career is most strongly influenced by their knowledge and experience of careers of family members and relatives. This was true of the pupils who completed the Fukuyama Profile.

If vocational guidance is to be effective it must encourage young people to expand their ideas about career choice based on realistic self-analysis through the use of cognitive tests, interest inventories, value/attitude scales and discussion.

IMPLEMENTATION OF THE F-TEST, THE FUKUYAMA PROFILE, IN NEW YORK CITY, OCTOBER, 1985

by
Marvin Weingart

I: Background Information

The New York City school system is a decentralized school system. Although there is a central Board of Education which operates the high schools and the special education schools and has overall governance responsibilities, there are also 32 community school boards which operate the elementary and junior high schools. Each community school board has its own district superintendent. Thus, in order to administer the F-Test to junior high school students in six districts, I had to work with five superintendents. I am the superintendent of a special school which is in a district of its own. The October 1985 administration was not the first use of the F-Test in New York City. I administered it in February of 1984 and there had been two prior administrations in 1976 and 1977. During those years I was district superintendent in New York and a number of the schools used at that time were in my district.

II: Selection and Description of Target Population

In selecting the districts to be offered the F-Test we had to bear in mind the logistics of distributing and collecting thousands of profiles and of orienting new districts. Once more I was pleased to have Dr. Inaba, Ms. Barney and Ms. Hirai conduct the training program. I wish to publicly acknowledge my gratitude for their splendid assistance.

Three of the districts were new to the program; District 32 from Brooklyn, District 24 from Queens and District 4 from Manhattan. These new districts represented comparable achievement levels, and two of them District 4 and 32 were similar ethnically. Both of those districts are predominately black and Hispanic, with those groups constituting 95% of each district. The other new district, District 24, has a pupil population that is 40% white, 35% Hispanic, 10% black and 15% Asian.

The other two districts and the special school which is in a district of its own had participated in the February 1984 administration. District 15 in Brooklyn has an achievement level just at the average for New York City. Sixty five percent of its students read at or above grade level which is exactly the citywide average. It is 61% Hispanic, 19% black, 18% white and 2% Asian. The other district, District 26 in Queens, where I had served as superintendent from 1972 to 1978 has the highest achievement levels in the city. Over 87% of its students read at or above grade level. It is 60% white, 23% black, 10% Asian and 7% Hispanic. The special school, I. S. 277 Queens which is operated by the Chancellor and for which I serve as superintendent, has 85% of its students at or above grade level.

III: Results

In October 1985 the Fukuyama Profile was administered to 3796 students in 20 intermediate and junior high schools. Although the Fukuyama Profile is primarily designed to be administered in Grade 9, many of the superintendents, principals and guidance counselors felt greater value could be derived if it were given to Grade 7 students. Since most of our middle schools cover Grades 7 to 9, the schools would be able to use the results for guidance purposes in Grades 8 and 9. Thus, of the 3796 students who took the F-Test, 3300 were in Grade 7. Consequently, most of my illustrative statistics will be scores of Grade 7 students.

The following examples are a necessarily brief overview of hundreds of pages of printouts:

A. Self Analysis

The standard index score is 85. In October 1985 we had a Grade 7 average of 92.4 for males and 92.0 for females. In February 1984 we had 89 for males and 88.6 for females. However in the 1977 administration the indexes were 93.9 for males and 94.6 for females. At that time in Tokyo males scored 98.6 and females 98.3. I would welcome the views of my colleagues during our discussion period as to the reasons for the differences between Tokyo and New York.

B. Job Analysis

The standard index is 60. Our Grade 7 males averaged 54 while females averaged 55.2. However, there were 95 Grade 9 males who averaged 57.6 and 114 Grade 9 females who averaged 59.7, only slightly below the standard index. Apparently, the two additional years in school engender a more mature understanding of work requirements. Examining results longitudinally, we note that in February 1984, Grade 7 males scored 65.4, while females scored 67.7. The drop in scores requires further investigation.

C. Occupational Tryouts in School

This is a key area since it is directly within our control and it indicates whether we are offering our students the rich variety of experiences necessary for informed vocational choices. The standard index score is 80. In October 1985 our Grade 7 students did poorly, the males averaging 25 and females averaging 29.4. In February 1984 the scores were higher; 41.5 for males and 45.2 for females. Only the special school did better in October 1985. For I. S. 227 the scores were 46.4 for males and 48.4 for females. Since a major objective for I. S. 227 is to provide many exploratory experiences, tryouts, apparently the school is succeeding.

D. Occupational Selection Ability

The standard index score is 75. In the 1977 administration we scored 64 for males and 66.8 for females. In February 1984 our scores were 70.3 for males and 71.7 for females. But in October 1985 we slipped back to 62.5 for males and 64 for females. Even our Grade 9 students were at the 60 level, well below standard. Even our special school was below standard although it led the rest of our schools with scores of 70.6 for males and 71.5 for females. Apparently, our students are not being provided with the insights they need.

E. Personality Tendency and Appropriate Occupation

The standard index score is 75. In February 1984 our males scored

67.9 and our females scored 68.6. In October 1985 our males improved, scoring 70.6 with females scoring 69.3. Nevertheless, we are still below standard. There is much work to be done.

The few statistics I have cited only touch upon the many benefits derived from the Fukuyama Profile. The school scores, the class scores, the individual scores which I have not had time to discuss represent signposts for school administration, curriculum revision and individual guidance. The Fukuyama Profile serves as an overall stimulus to our vocational guidance program. It is an extremely valuable instrument.

IV: New York State: Commissioner's Regulations

Recently the New York State Commissioner of Education revised his regulations. Among those revisions are new objectives for guidance which can be achieved more readily through use of the Fukuyama Profile.

For example, in Grades 7-12 there must be:

"an annual review of each student's educational progress and career plans."

There must also be:

"instruction at each grade level to help students learn about various careers and career planning skills."

Furthermore all schools must:

"offer students the opportunity to begin an approved occupational sequence in the ninth grade" and it must include "one unit of credit in introduction to occupations."

What better introduction to occupations than through the Fukuyama Profile? The F-Test has been years ahead of its time. The district superintendents I have worked with have welcomed the Fukuyama Profile since it is a key factor in meeting New York State requirements.

I am pleased and honored to have been instrumental in expanding its use in New York City; and on behalf of New York I wish to express my deep professional gratitude to Dr. Fukuyama for having made it possible for thousands of our students to have the benefit of the FUKUYAMA PROFILE.

F-TEST FOR APPRAISING THE ABILITY TO CHOOSE METHODICALLY AMONG OCCUPATIONS — FUKUYAMA PROFILE

by
Karl G. Zenke

1-0 Introduction

1-1 Overview of Internationalization Process of the F-Test

Since the F-Test for Appraising the Ability to Choose Methodically among Occupations was originated by Dr. Shigekazu Fukuyama in 1949, a great number of junior high schools in Japan have continuously put it into practice. The abundance of data and experience gained through such a process have led to modification of the F-Test per se to make it more suitable to the age and the society.

Because the school system and the curriculum in Japan and the U. S. A. were similar, the internationalization of the F-Test began from junior high schools in the U. S. Since 1972, the English version F-Test has been implemented in a large number of States in the U. S. with close collaboration between Dr. Shigekazu Fukuyama, the originator of the Profile, and the education authorities of the States of Hawaii and New York.

Dr. Shigekazu Fukuyama reports in his series of comparative studies the outcome of the experience with the American schools and its evaluation by teachers and the specialists in the education authorities. In summary, it has been clearly confirmed that, the F-Test justifies its reputation as being a supplemental method for analytical teaching which enabling continuous improvement in the interactions between the student and the teacher/adviser, which is required throughout the vocational guidance process.

At the same time, by far the most important development up to now is the fact that the internationalization of the F-Test opened up basic perspective for the special historical needs demanded of career and vocational guidance in the face of the distinctive demographic changes (aging society) being observed in today's industrialized society amid rapid industrial and economic development in general.

In this context, implementation of the F-Test within the framework of training system in the respective countries would have great significance in that it would enable comparative study among countries, as well as educators and education administrators, to learn and understand the problems at national levels. Hence, the First International Conference on Vocational Guidance, held at Ashiya University on the initiative of Dr. Shigekazu Fukuyama in 1978, decided that the F-Test would be tried in other countries. The Soviet Union started preparations to implement the F-Test immediately following the First International Conference of Ashiya University while France and Switzerland have already introduced the French version F-Test.

1-2 For the Implementation of the F-Test in the Federal Republic of Germany

Both occupational orienteering (Berufsorientierung) and preparation for occupational selection (Berufswahlvorbereitung) constitute solid elements in the curricula of the secondary school (extended elementary school, middle school, high school) in FRG. In discharging this teaching duty, schools receive vocational consultation (Berufsbertung) and assistance rendered by the one and only national vocation counsel body.

The aims, contents and methodology of career and vocational guidance in FRG should probably be similar to those in Japan, the U. S. and other industrialized societies. This is because the basic condition for a public training institution for carrying out this task would be the existence of clearly balanced relationships among these countries in the areas of studies, technology, production, commerce, general administration of the country, educational administration, labor market policy, etc.

Dr. Shigekazu Fukuyama's intention to bring the current of F-Test internationalization to the shores of FRG is grounded on two beliefs. One is that be it in the training process (school) or in actual occupational activities (factories, shops, etc.), youth should be guided so that they are integrated in a manner that can meet the national economic needs as well as give satisfaction to the individual. The second is the existence of a wide area of similarity between FRG and other countries where the F-Test has so far been carried out in terms of social and economic development. Hence, Dr. Shigekazu Fukuyama approached me immediately following the Fourth International Conference pertaining to vocational guidance which met at Ashiya University in autumn 1984 to discuss problems pertaining to vocational guidance, and entrusted me to discharge this task.

2-0 Preparatory Works

The author prepared the German version of Form A and Form B and the "Guidelines and Directions for Administration and Interpretations of Results," (1985, Reutlingen; see the appendix to this report) taking as reference the September 1982 edition of the American version F-Test and the second edition of the introductory guide by Dr. Shigekazu Fukuyama. For some questions in both Forms A and B a different approach from that in the Japanese version had to be employed in order to translate the original intention as close as possible into German, and supplementary comments had to be added in some cases in order to adapt it to the German situation.

For the same purpose, a detailed comparison was made between Forms A and B in German translated from the American version and those in Japanese. In a joint effort with Professor Toshihiro Yokoyama who rendered his expertise, all the questions in the German text were re-examined against the Japanese text to ensure that their intentions correspond. Consequently the German Forms employ a format and basic composition which are identical with the Japanese Forms.

In October 1985, a preliminary test was conducted on 20 students in an attempt to examine whether the test forms were easy to understand or not. At that point, the final proofreading of the German text was yet to be completed, and consequently some problems remained. However, had it been completed, there would probably have been no problem.

In November 1985, the author obtained permission from Dr. Shigekazu Fukuyama to print the Test Forms and to make a copy of "Guideline and Directions for Administration and Interpretation of Results."

Certain features had to be considered in the selection of the sampling student groups: The random sampled students must come from the three types of schools, namely extended elementary school, middle school, high school; and they must come from respective grades in which the curriculum places importance on occupational orienteering and preparation for occupational selection. The author felt confident that if the test outline were explained, both the student and the teacher would feel prepared to take the test. Of course, all the students had been promised that the evaluation of the F-Test result would be fed back to them for use in their preparation for occupational selection.

With the support of the school management administrative authority, 35 classes were chosen for the purpose of the study. The number of sample students chosen at random from the 35 classes was 721 (see Table 1(a) and (b)).

The test was given to the students by the teachers. Therefore, prior to the actual test all 35 teachers attended the class to learn the theory and the practice of the F-Test.

Table 1

a) Number of Schools and Classes

Schools		Classes
Hauptschule	6	11
Realschule	4	19
Gymnasium	1	5

b) Number of Students by Sex and by Grade/Age

Schools	Total	Male	Female	Grade	Age
Hauptschule	206	100	106	8	14
Realschule	389	214	175	9	15
Gymnasium	126	62	64	10	16

n = 721

3—0 Time Table

Nov.	1984	Consignment of F-Test administration
Mar. - Aug.	1985	Translation work, Coordination with Dr. Shigekazu Fukuyama for translation, Joint work with Prof. Toshihiro Yokoyama to compare and examine against the Japanese original text
Oct.	1985	Preliminary test with 20 students
Nov.	1985	Preparatory meeting with teachers, Ministry of Education of-

		ficials, etc.
Dec.	1985	Implementation of F-Test on sample
Jan.	1986	Students from 35 classes
Mar.	1986	Computer analysis (evaluation) at Ashiya University
Mar. - May	1986	Analysis (evaluation) at Reutilingen
May	1986	Interpretation of result and reporting to teachers (2nd semester)
May	1986	Presentation of test results to occupational selection classes that took the test
Jan.	1986	Preparation of the final report
Jul.	1986	Presentation of the final report to Dr. Shigekazu Fukuyama of Ashiya University
Nov.	1986	Discussion on the report at Ashiya University with the administrator of the test and the participants to the Fifth International Conference on Vocational Guidance

4-0 Tasks - Inquiries - Hypotheses

4-1 Adaptability to German Schools

Preparations and capacity for a conscious and rational occupational selection depend on the following factors.

- Capacity for self-analysis and proper self-assessment.
- Capacity to realistically assess the various requirements of jobs.
- Capacity to recall, arrange and evaluate the prior job-related experiences to meet the purpose.

The individual's developmental stage with regard to the above three factors can be identified by examining the following through the F-Test:

- The amount and nature of the prior job-oriented experience of the student which is important for the occupation.
- The capacity of the student to discern the personality traits which are important for the occupation.
- The knowledge of the things necessary for different occupations.
- The student's own assessment of his/her adaptability to a certain occupation.

The German version F-Test will enable us to examine the extent to which this test is capable of displaying the above mentioned functions in German schools.

The following will serve as the criteria for making such a judgement.

- The level of success or the extent to which the students can reply to the questions in the test (interest).
- Comparison of the test results with the data available from Japan, U. S. A., France and Switzerland.
- Evaluation for the analytical and teaching functions of the F-Test made at review meetings with teachers and school authorities who had given cooperation.

4-2 International Comparison

The student groups of different countries that have been subjected to the studies (F-Test) so far share similar conditions in certain aspects, while being different in others, when considering them in the perspective of socializing at home, school or in the society. This is due to different pre-conditions and the development stage of

the individual for a conscious and planned career selection or an occupational selection.

The above is particularly true of the following:

- The opportunity to experience the occupation in practice within the curriculum (number of hours).
- The level of intensity of discussions between the teacher/adviser and student concerning problems associated with career and vocational guidance.
- The amount and nature of tryouts that a student could have experienced at home, during play or at school.

Comparison of the data taken in standard level of F-Test, France and Switzerland with the study results in Germany reveals the following.

- The areas of ability and experience that F-Test can identify as being a national trait.
- Whether it is possible to predict that the various experiences in the student's daily life influence the priority of the area of activity of the student concerned (It is possible to collect tryout experience in the strict sense of the word in Germany).
- Whether the extent of the ability of a student to analyse himself (herself) is clearly grasped in a situation under which the student is faced with various kinds of stress during discussions with the teacher/adviser.

4-3 Differences by Sex

In countries where the F-Test has been conducted, observations have been made to find out to what extent explicit differences according to sex exist in socialization and education.

The role of a mother was traditionally interpreted to mean children's education, housework, taking care of plants, laundry, cleaning, scrubbing the floor and attending to the family. Girls are more continuously exposed to these elements in their experiences and learning process than are boys.

However, parents and girls are gradually becoming aware of the need to open the doors to the kind of jobs that have traditionally been regarded as men's jobs to girls and females, and to create opportunities for realistic training for females in these fields.

Will the F-Test result show the expected differences between boys and girls? What features of such differences will international comparison clearly indicate? Is the girls' occupation perspective clearly concentrated on fewer occupations than that of boys?

4-4 Differences by Social Stratum

In the Federal Republic of Germany, the students advancing to extended elementary school, middle school, high school come from social classes (economic, cultural) which are distinctly different from each other. The most essential social science standard in Germany for classifying a family into a social class is the level of knowledge and skill required in the occupation of the head of the family (generally the father).

According to a survey conducted in 1980, 60.9% of the total students at extended elementary school, 22.3% at middle school, and only 9.8% at high school

came from a family in which the father was a worker. Meanwhile, 50.7% of the students at high school, 24.5% of middle school and only 20.0% of extended elementary school came from public servant's families.

What should be taken more into consideration is the fact that the fathers of almost all the high school students are high ranking public servants while the majority of the fathers of extended elementary school students are low ranking public servants.

Given this background, it is anticipated that distinct differences (in terms of social class) will be observed with regard to pre-job experience of the students as well as with regard to what the students themselves perceive to be the most suitable job for them.

4-5 Differences by Type of School

Various kinds of consideration to preparation for occupational selection were given in the curricula of different types of schools which cooperated with our research and study. Such considerations include experiencing a job practices in classes, on-the-job trainings and systematic occupational orienteering among others.

The curriculum for the eighth grade student of extended elementary school allots an average of about six weeks for systematic occupational orienteering and preparation for occupational selection. Meanwhile the figure for the curriculum of the ninth grade student at middle school is four weeks. At high school, such classes are included, though very rarely, in the curriculum of the tenth grade in the form of study groups.

Consequently, it is anticipated that the individual index-werte of F-Test would differ from one type of school to the other.

It is also expected that the students of extended elementary schools and middle schools will most likely mark higher points than the students of high schools with regard to diversity in the field of activities which enable them to accumulate pre-job experience (tryout experience) as well as in-school experience.

5-0 Notes on Methodology

The characteristic of the F-Test lies in the fact that it is an integration of the methodologies taken from the fields of personality tests, ability tests and job interest tests. This test should fall in the category of a subjective test. This is because the students are asked to choose from among the items and questions in the test and to evaluate and to reply to them while examination of the objectivity of the statement thus written is abandoned.

The structure, content and administration method of the F-Test are founded on the intention to respect the self-education process of the individual students when they choose their future course. If the use of the F-Test could identify the pre-conditions of the individual students which would benefit the education process of the student concerned, it is beyond doubt that the F-Test would be of substantial help in making this process a rational one. If the pre-conditions of the individual students are identified, it would not only help to enhance students' awareness but would serve as a lead to teachers and advisers for developing talks with the students and new learning programs.

Therefore, the primary function of the F-Test is to serve as a supplementary instrument for diagnosing the ways and means to improve the interaction between

teachers/advisers and students. Dr. Shigekazu Fukuyama in the preface of the American version F-Test speaks to this effect when he writes "F-Test for Appraising the Ability to Choose Methodically among Occupations has been formulated as a specific approach to quantitatively evaluate the student's ability to choose his future course wisely . . . "

Proper interpretation of the subjective values given by individuals to the test is only possible when consideration is given to data pertaining to the life history of the examinee on an individual basis. In addition, much of the appraisals, responses and statements are fully understood only through talks directly with the examinee.

It should be noted that the F-Test was not employed in this study for the aforementioned purpose. Rather the F-Test was used as a descriptive-analytical instrument to collect data from a fairly large student group. Consequently, the interesting part of the appraisal and the discussion in the following is that certain characteristics of the group as a whole or the sampled unit group are reflected in the statistic. Needless to say, the teachers who cooperated in the study can effectively use it for a diagnostic purpose as mentioned above to assist them when giving guidance to their students.

Although many kinds of data are lacking in individual cases, our analysis should not be content with simply coming up with statistical data such as frequency distribution, class categories and statistical indices. Empirically, the series of hypotheses which are often referred to when interpreting data can invariably be expressed in a formula in accordance with the theories of safety measures. If it is not relevant to the force which produces such an implication, formularization of the proposition put forth in section 4-0 could not have been possible. One thing we should not forget is that our theoretical task is to maximize the portion which can be formularized. Because we cannot possibly grasp all of the many conditions within the framework of this study - and proper judgement of the F-Test result can only be made by considering and checking varied conditions.

A similar limitation exists with regard to the viability of international comparison of the test results. In international comparison, identification of the curriculum conditions in schools and social conditions of the respective countries is of special importance.

The current study has been structured for a cross-sectional analysis. It was not possible, therefore, to empirically elaborate in this report as to how effective the F-Test is in the improvement of the occupational selection process (since it is a one-time study). An attempt to evaluate the level of efficacy would require a vertical-section study which would enable verification through study group-check group comparison using F-Test as an arbitration variable.

On the other hand, because all the teachers were able to apply the F-Test result to the occupational selection classes which were in process at that time, before this final report was drafted the experience obtained and the evaluation of the test expressed in such classes could be incorporated, though minimally, in the final report.

6-0 Results, Comments, Discussion

6-1 The Results in Comparison to the Study from Dupont/Pellerano (1984)

6-1-1 From 721 question-forms handed out by the teachers, 704 were returned fully completed. The largest number of uncompleted forms were from "Gymnasium" (Grammar school)- students!

For the majority of these students, the choice of profession is in the relatively distant future, so one can presume that lack of interest and lack of concentration had led to mistakes in the completion of the test. (see Table 2)

Table 2 Number of Question Aries

Schools	distributed	completed	uncompleted
Hauptschule	206	206	-
Realschule	389	384	5
Gymnasium	126	114	12
Total	721	n=704	17

There are two reasons in the teachers opinion, for the altogether very low quotient of erraneous forms.

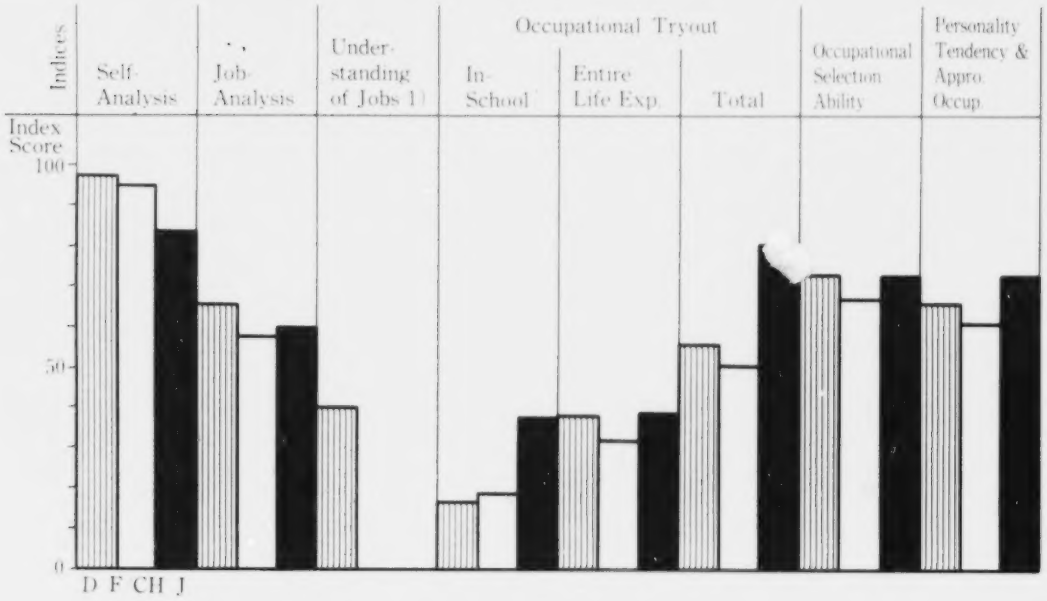
- Both of the test-forms A and B are extensively explained, and were filled-in without any limitation of the time allowed. The teachers were available, in case of questions for the whole time required to complete the test.
- The F-Test is for students from age 14 years onward easy to understand and to deal with.

6-1-2 On the whole, the trend showed that the German students achieved similar index-values as those in France and Switzerland, and to those given in the F-Test standard-values (compare Table 3). The index-values show significant deviations for the "Self-Analysis", "Occupational Tryout - In School" and for the "Occupational Tryout - Total". The German students did not reach the F-Test standard in the classification by points for the "Personality Tendency and Appropriate Occupation" - index. The higher scores for "Self-Analysis" resulted very probably from the fact that the German teachers have less chance of finding out the personal qualities and tendencies of the students in the differentiation expected from the F-Test. An extensive, continual and comprehensive interaction is hardly possible due to part-time schooling and the system of specialised teachers. Especially because the teachers who give careers-advice and preparation for the choice of profession, only have an average of approximately 4 hours per week in one class. As a result the teachers are very cautious in the correction of the self-assessment of the students.

The standard of "Job-Analysis" for the German students lies slightly above that of the F-Test. This could be due to the fact that career-advice takes up a relatively large part of the lessons spent in preparation for choosing a job in the "Haupt and Realschule".

All of the students receive printed information free of charge from the vocational guidance from the state. The differences between the occupational tryouts are remarkable. It can be taken that, analogous to the explanation of Dupont/ Pellerano, German students apparently have less opportunity of practical employ-

Table 3 Comparison of Mean Index Scores (n=704)



D=Zenke 1985/86
F/CH=Dupont/Pellerano 1984
J=Standards of F-Test

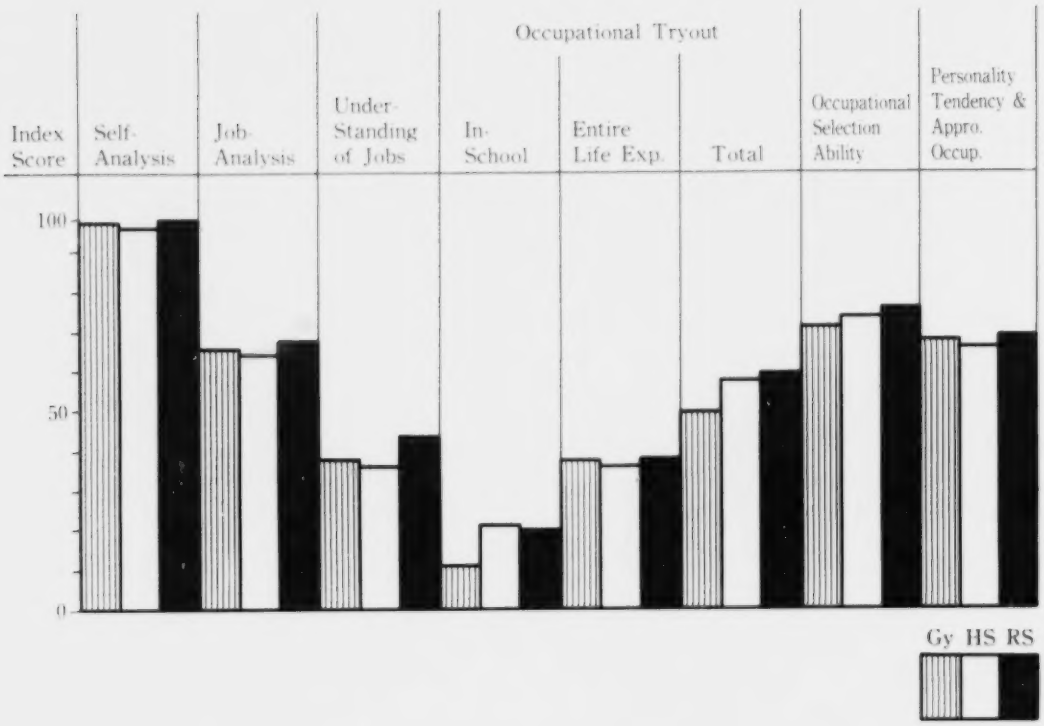
1) Firstly 1985/86

Table 4

Index Means by Schools

	Self-Analysis	Job-Analysis	Understanding of Jobs	Occupational Tryout			Occupational Selection Ability	Personality Tendency & Appro.
				In-School	Entire Life Exp.	Total		
Hauptschule Grade 8								
m.	98.33	66.09	38.29	19.22	36.92	56.17	73.52	65.65
f.	97.89	65.61	36.81	23.26	39.07	62.35	75.27	66.39
total	98.11	65.85	37.55	21.24	37.99	59.26	74.39	66.02
Realschule Grade 9								
m.	99.01	68.04	44.15	18.57	36.97	55.56	74.19	68.47
f.	98.57	68.76	46.30	23.60	40.97	64.56	77.29	68.75
total	98.79	68.40	45.22	21.08	38.97	60.06	75.74	68.61
Gymnasium Grade 10								
m.	98.60	66.44	39.32	11.64	35.48	47.12	70.66	67.92
f.	98.56	65.76	37.26	13.74	41.04	54.82	73.10	66.26
total	98.58	66.10	38.29	12.69	38.26	50.97	71.88	67.09

Table 5 Index Means by Schools



ment experiences in school than F-Test standard.

This was especially the case for students from Gymnasium. They achieved much lower scores than the students from Hauptschule and Realschule in the "Occupational Tryout-In School" and "Total" (Table 4 and 5).

Table 6 shows, also in comparison with table 3 from Dupont/Pellerano, a relatively high standard deviation (s) for the "Occupational Tryout" for girls and boys. These high deviations from the arithmetic mean value bring us to the conclusion that the individuals had very different amounts of employment. Practical courses in the schools do not appear to balance these differences sufficiently.

6-1-3 When one compares the index-value between girls and boys, one is similarly only able to detect distinct differences in the "Occupational Tryout" field. (Compare Table 6 and 7)

Two other indicators show even more pronounced characteristics for a difference between male and female students. In the kinds of activities in which the students were able to collect practical experience before working, there are certain areas which were mainly female, and those which were mainly for males (Table 8 and 9).

The number of girls with practical experience in all activities which belong to the sphere "Home/house and family", was much greater than that of boys in the same field. One can see this quite clearly in the comparison between these categories in table 9.

Table 9

Female, n=370 Male, n=334

G	Made Things II	360	198
D	Processed Food	359	253
L	Prepared Food	348	244
K	Received Visitors	346	291
J	Conducted Business	320	231
M	Took Care of	245	110

Table 6

Index Means and Standard Deviations by Sex

	male (n=334)		female (n=370)		total (n=704)	
Indices	M	S	M	S	M	S
Self-Analysis	98.56	2.40	98.33	2.85	98.45	2.36
Job-Analysis	66.40	5.84	66.33	4.98	66.37	5.41
Occupational Tryout-In School	33.43	16.49	38.63	16.31	36.03	16.40
Occupational Tryout	53.73	14.38	59.33	11.85	56.53	13.12
Occupational Selection Abily.	72.90	5.59	74.67	4.84	73.79	5.22
Pers. Tendency & Appop. Occ.	67.17	10.36	66.80	10.00	66.99	10.18
Understanding of Jobs 1)	39.27	17.52	39.10	14.95	39.19	16.24

1) Firstly 1985/86

Table 7 Index Means by Sex n=704

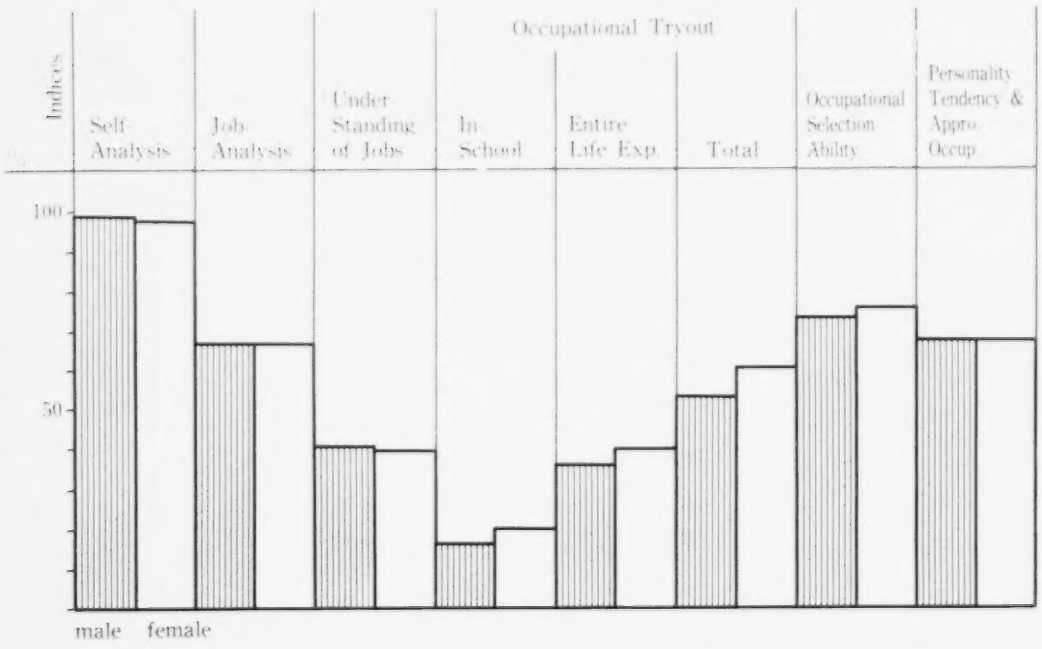


Table 8

Classification of Kinds of Activities according to the Number of Students with maximal scores (3.0 pts.)

In-School					
Male n=334			Female n=370		
F	Made Things (I)	279	G	Made Things (II)	233
O	Engaged In Sports	196	F	Made Things (I)	226
E	Drew (Drafted)	189	I	Did Clerical Work	225
H	Operated Machinery	173	L	Prepared Food	217
I	Did Clerical Work	166	O	Engaged In Sports	214
G	Made Things (II)	147	E	Drew (Drafted)	182
N	Presented (Made Public)	115	D	Processed Food	161
L	Prepared Food	91	N	Presented (Made Public)	161
J	Conducted Business	87	H	Operated Machinery	148
D	Processed Food	60	J	Conducted Business	122
K	Received Visitors	41	K	Received Visitors	74
P	Did Research	40	A	Grew Vegetables and Flowers	50
A	Grew Vegetables and Flowers	23	P	Did Research	26
B	Raised Living Things	5	B	Raised Living Things	20
C	Caught Fish	2	M	Took Care Of	9
M	Took Care of	2	C	Caught Fish	3

Table 9

Classification of Kinds of Activities according to the Number of Students with maximal scores (3.0 pts.)

Other					
Male n=334			Female n=370		
K	Received Visitors	291	G	Made Things (II)	360
H	Operated Machinery	287	D	Processed Food	359
O	Engaged In Sports	270	L	Prepared Food	348
D	Processed Food	253	K	Received Visitors	346
L	Prepared Food	244	J	Conducted Business	320
J	Conducted Business	231	B	Raised Living Things	315
I	Did Clerical Work	221	A	Grew Vegetables And Flowers	313
A	Grew Vegetables And Flowers	220	O	Engaged In Sports	299
B	Raised Living Things	219	I	Did Clerical Work	295

F	Made Things (I)	198	H	Made Things (I)	272
G	Made Things (II)	198	M	Took Care Of	245
N	Presented (Made Public)	144	N	Presented (Made Public)	230
E	Drew (Drafted)	143	F	Made Things (I)	177
M	Took Care Of	110	E	Drew (Drafted)	137
C	Caught Fish	70	C	Caught Fish	40
P	Did Research	68	P	Did Research	34

There are also distinct differences in the way the female and male students handle the topic "Professional Ability".

The 370 girls named 59 different professions. Of these 59, 53 were typically female professions (or those which are easily accessible for females). Only 6 of the occupations named by the girls were typically male professions by tradition. Amongst the 334 boys were altogether 145 different professions listed.

This difference in the number of possible professions according to aptitude (stated by the girls and boys) reflects quite impressively the limited training-possibilities which girls and women have.

6-1-4 For an international comparison, a contrast between the five occupational tryouts with the highest points in tables 8 and 9 with those of Dupont/Pellerano is interesting:

Table 10

Dupont/Pellerano				Zenke			
School		Other		School		Other	
M	F	M	F	M	F	M	F
E	E	O	O	F	G	K	G
O	N	H	L	O	F	H	D
N	O	L	D	E	I	O	L
F	G	B	N	H	L	D	K
H	L	D	G	I	O	L	J

Kinds of Activities

A Grew Vegetables and Flowers
B Raised Living Things
C Caught Fish
D Processed Food
E Drew (Drafted)
F Made Things (I)
G Made Things (II)
H Operated Machinery
I Did Clerical Work
J Conducted Business
K Received Visitors
L Prepared Food
M Took Care Of
N Presented (Made Public)
O Engaged In Sports
P Did Research

Music, arts, and sports (sphere of activity N and O) are for students from France and Switzerland by far more important than the more technically-orientated experiences which are especially popular with German students. Also conspicuous is the first-choice position for drafting-designing (E) by the French and Swiss. Presumably, these activities must be taught systematically as a special subject.

In France and Switzerland the art-subjects and athletic elements predominate, whereas in Germany it appears that handicrafts, domestic and technical demands predominate. The so-called "seriousness of professional life" reaches the German students earlier and more directly. But that does not necessarily decide whether or not they really are better prepared for their choice of profession and their training within that profession. For quite a lot goes to show that experiences in artistic creativity is becoming a more important prerequistite for a life-long learning process at work, in society and in the family.

6-2 The Position of German Students

To check the formulated hypotheses in points 4-4 and 4-5 (of the whole report!)- the influence of social class (4-4) and of the different curriculum in the three types of German schools (4-5)- one can consider the results of the so-called "Vocational Ability" in form B, and also the results in table 5 and 12.

6-2-1 The students were asked in form B to name the occupation which they felt they were best suited for.

A significant decleration is thereby expected from the students. The category "profession" contains many important experiences and expectations with regard to the hitherto experience within the family and school, and also with regard to the personal future. The profession of the father is decisive for the material, cultural, and social living conditions of the family.

And the perspectives for one's own future are similary impressed by the central function of one's profession for the individual and social identity. For example, when a student states that he feels especially suitable for the job of a doctor, than behind this statement is not the knowledge of the personal ability to be able to fulfill the requirements of this profession. This is more a type of concentration of internal family culture, one's own image, acquired authority from previous school-education, material resources for the imminent courses of instruction, and perspectives for the future life.

In table 11, it has been attempted to show the most important factors, which develop from the social process within the family, for the origin of a personal choice of profession according to the students own picture of his ability, and the spectrum of expectations which are generally connected with a special desire for a particular profession.

The professions which the students named as "Aptitude Profession" can be classified into 4 levels. The first status as taken by the academic professions, a university education after Abitur.

The second place is taken by the colleges and special schools after the "Mittlere Reife" (Middle school level).

Other professions are collected together in clerical work, community administration or in special courses.

The 4th place is taken by the skilled workers.

If one goes from the specific influences within certain classes of society, it can be seen in table 11, that the level of the social status of the family can be correlated with the level of the chosen profession according to aptitude.
In the 114 forms from students of the Gymnasium were listed 55 different professions.
These professions were divides as follows:

Academic	21 prof.	- 38.3%
Techn. college	15	- 27.2%
Other	8	- 14.5%
Workers	11	20.0%

Approximately 65% of the professions named by students from Gymnasium belonged to the upper groups.
The 384 students from Realschule (Middle school) stated 89 different occupations. Their choice was as follows:

Academic	9	- 10.1%
Techn. college	26	- 29.2%
Other	9	- 10.1%
Workers	45	- 50.5%

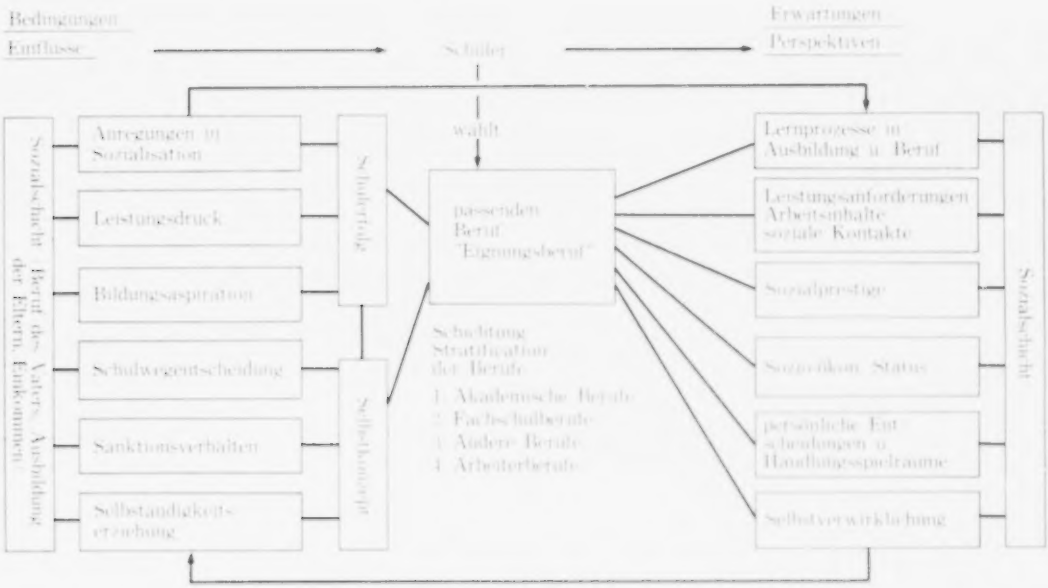
Approximately 40% belonged to the upper two groups.
The 206 students from Hauptschule stated 60 professions, as follows:

Academic	2	- 3.3%
Techn. college	14	- 23.3%
Other	6	- 10.0%
Workers	38	- 63.3%

Only approximately 27% which were in the upper group. 3.3% of students from the Hauptschule chose professions belonging to the top group, in comparison to 38.3% from Gymnasium-students!
The assumption in point 4.4 can be extensively confirmed. The tendency can be summarised as follows:
Children from workers, lower officials and employees tend also to become workers. The children from fathers with a profession in the upper levels also wish to be able to learn a profession from one of these categories. The anticipations and perspectives of students exhibit themselves thereby as a sort of projection of the hitherto practices of socialisation into the future.

6-2-2 In point 4-5 the hypotheses was declared that the different proportions of practical-professional knowledge in the curricula in Hauptschule, Realschule and Gymnasium by some index-values, especially the number of "Occupational Tryout" (In-School), must show consequences. The differences in the index-values do not confirm this hypothesis (Table 5).
The students from Hauptschule and Realschule attained a distinctly better score than the students from Gymnasium only in the "Occupational Tryout". In comparison, table 12-1 and 12-2 show significant differences.
In 9 out of 16 different kinds of activities the students from Hauptschule and Realschule have essentially more occupational tryouts within the school than the students from Gymnasium. But due to the momentary situation of occupational tryout outside of school (Table 13), the students in Gymnasium manage to acquire the same amount of experience in almost all kinds of activities. (Table

Table 11



14)

7-0 Overall Assessment of the Study

7-1 Significance of F-Test on Teaching

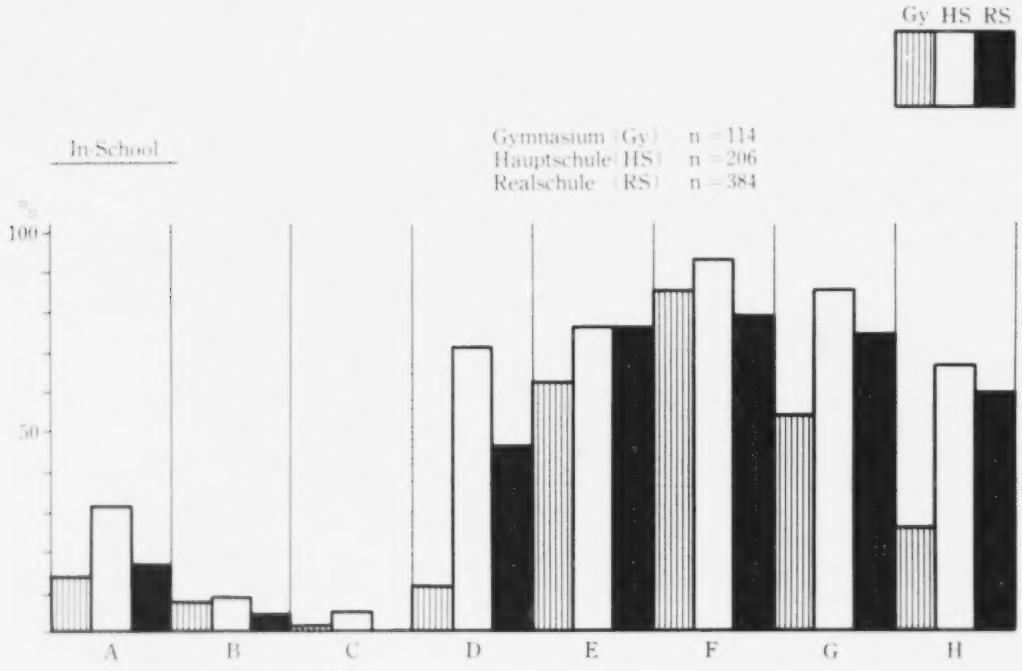
Most tests that are employed in the job selection process in FRG are what is generally known as job aptitude test. It is the level of a student's interest and tendency (aptitude) to jobs and the features of occupation-related aptitude that are analyzed, referred to or measured by these tests. The tests attempt to gain hints to find a suitable job for the person concerned from the data thus obtained. And individual traits and occupational requirements are associated from the point of view of adaptability.

The F-Test is different from these type of tests in its essential concept. What this test provides is not the possibility to make objective assessment of the student's personality. Nor does it make students and teachers believe that the test will demonstrate the type of job best suited to the aptitude of the student concerned.

In fact, the intention of this test is a) to systematically reconstruct the history of one's experience in life - this has important implications for proceeding with vocational training process; as well as b) self-evaluation of individual character by students - hence, students are directed to describe his or her stage in the job selection process. By having to write descriptions, students become aware of the implications of their experience in life so far on one hand, while on the other hand, they will be indicating the positive and negative aspects of their character in relation to the impending job selection and decision-making processes.

The test does not offer any recommendation to any job. But it does provide a reference point for evaluation of the ability to methodically and satisfactorily pursue

Table 12-1 % of Students with Experiences in the kinds of Activities by Schools



Kind of Activities A-P

Table 12-2

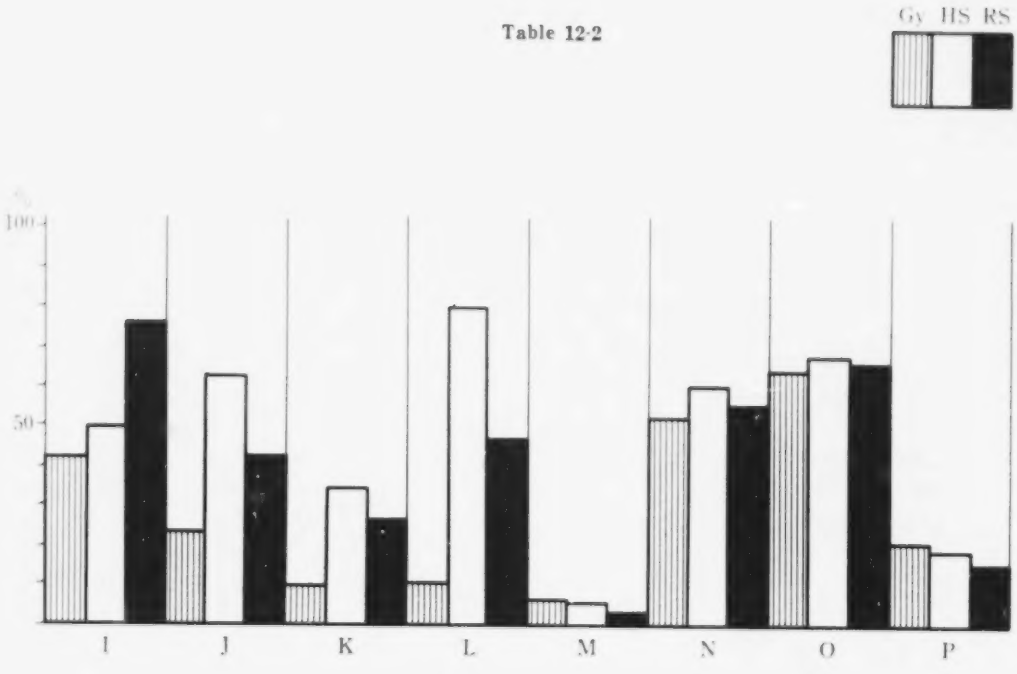


Table 13-1 % of Students Experiences in the kinds of Activities by Schools

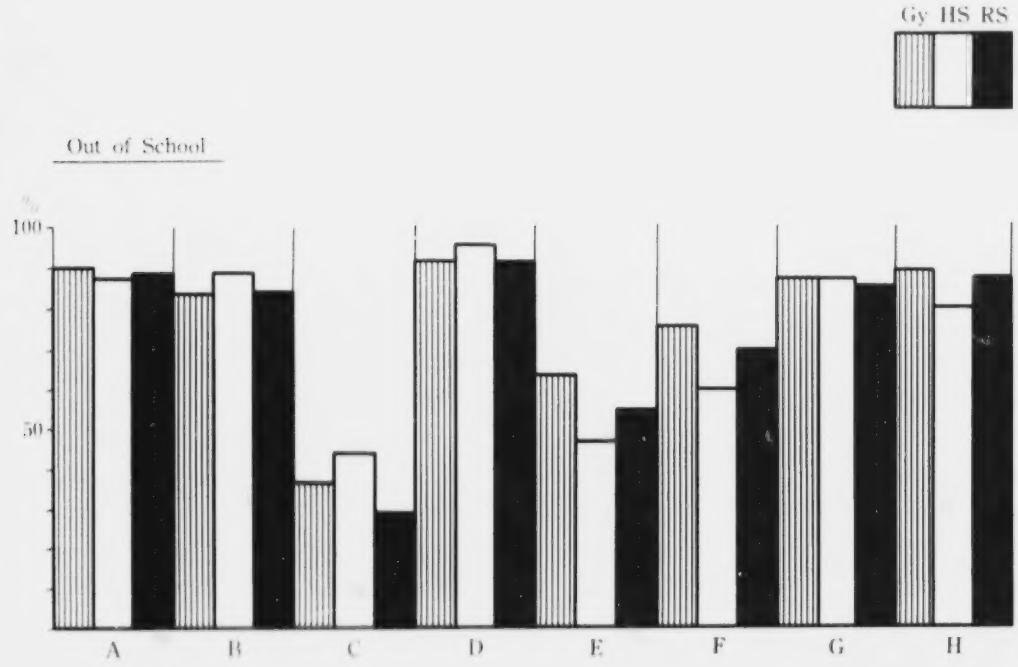


Table 13-2

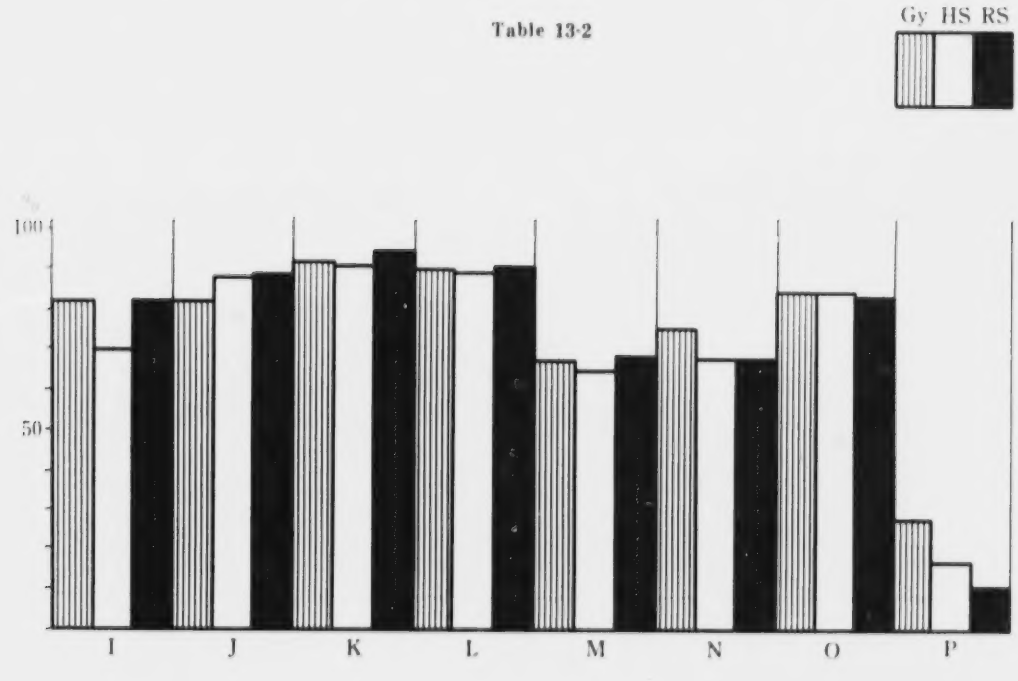


Table 14-1 % of Students Experiences in the kinds of Activities by Schools

Entire Life Experience

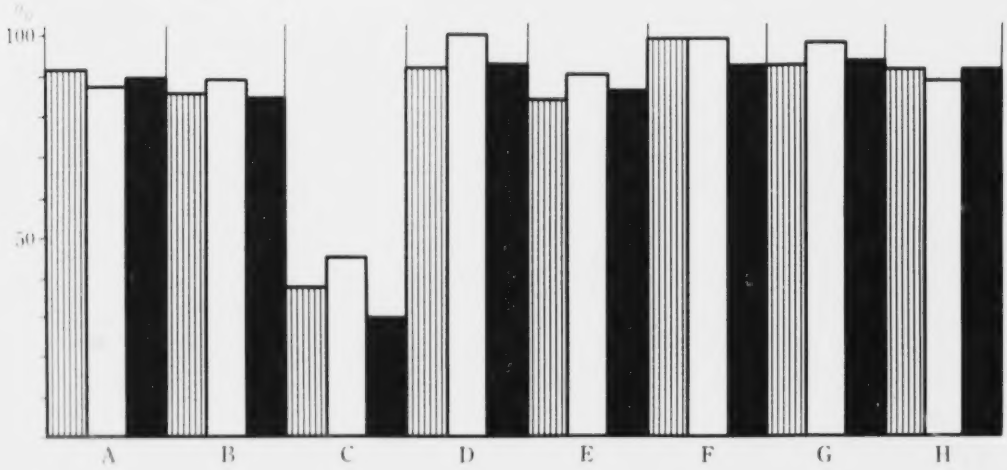
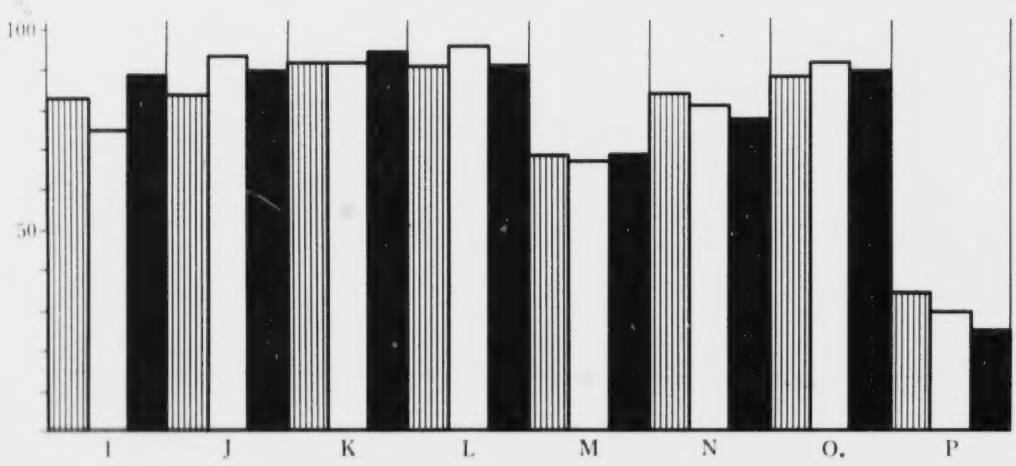


Table 14-2



the job selection process. It is in this context that the learning value of the F-Test deserves attention in the framework of a preparation for occupational selection in schools.

The F-Test encourages a systematic self-review, and identity building, identifies the problems entailed in the previous learning and experiencing process, and serves as an opportunity for talks between teacher/adviser and students. Such talks can concentrate on for very concrete personal history of the youth and his or her future perspective to life. And finally, this test provides hints to teachers/advisers on how they can present jobs that meet the purpose and how the ability of students to systematically choose occupation can be enhanced through appropriate action.

As this study advanced, the majority of the teachers were able to experience the teaching function of the F-Test. Their comments were as follow. The F-Test should be employed repeatedly in the upper grades of secondary schools. This will enable continuous observation of the job selection process.

7-2 F-Test is Suitable for Inter-Country Comparative Study

It is safe to say that as far as the materials on F-Test that have been published to date are concerned, although few, this test is also an appropriate instrument to collect and define data for inter-country comparative study. This is justified by the comparison between the F-Test standard and the studies of Dupont/Pellerano presented in the report.

It is quite clear that there are impacts among the following elements unique to Japan, France, Switzerland and FRG, respectively: 1) Different curricula in the respective countries, 2) Different characteristic of the content and the organization addressed to building teacher-student interaction in the respective countries, and 3) Day-to-day cultural elements that effect the student's ability to make job selection.

Obviously, further development of the F-Test is desired, because it would further improve many of the potentials of this test.

7-3 F-Test is Suitable for National Study

The F-Test offers a number of useful methods for studies aimed at making a comparative approach to job selection ability of boys and girls in different kinds of classes and schools. This may be of special interest to countries in which the school system is clearly divided or, rather, stratified.

Out study in Germany played a series of enlightening roles in this area, too. However, further improvement may be required.

7-4 Value of Motivation

Finally, it deserves to be mentioned that all the students and teachers involved in the F-Test were deeply interested and motivated by the test.

Within the framework of preparation for occupational selection in FRG, students are given a great number of audio-visual media including textbooks, information material and workbooks. But their experience in taking this test must have had a strong and distinct impact on them.

This brings us back to the core of the F-Test in this section of final observation. This is because the activities in the area of comparative studies referred to earlier only constitute a secondary function. First and foremost, the F-Test will display its true value as an instrument for improving the processes of occupational history and job selection. For this purpose, this test should be incorporated in the continuous learning and advising processes during the individual interviews between teacher/adviser

and student. This should serve in the interests of a successful career for the young people.

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THE DEVELOPMENT OF JUNIOR HIGH SCHOOL STUDENT ABILITY IN OCCUPATIONAL SELECTION
—RETENTION AND ALTERATION OF VOCATIONAL CHOICE AT LARGE AND SMALL SCALE SCHOOLS

by
Yasukazu Nishida

1. Objective

To conduct a comparative study on the development of ability among large and small scale junior high school students to select vocations, via an analysis of student retention and alteration of vocational choice.

2. Target, Method of Study, and Hypothesis

Implementation of the "F-Test for Appraising the Ability to Choose Methodically among Occupations" among students of two types of school: once in their the 8th grade, and once in their the 9th being:

School A: A large scale school, each grade of which consists of 14 classes of 45 students.

School B: A small scale school, each grade of which consists of 2 classes of 30 students each. The small scale schools are authorized to reorganize into two classes the class exceeding 45 students. (This school was the work experience activities promotion school designated by the Education Ministry in 1982 and 1983.)

The times of F-Test implementation are as follows:

School A- November 1984 and February 1986.

School B- October 1982 and January 1984.

The "F-Test for Appraising the Ability to Choose Methodically among Occupations" consists of "Recording Form for Occupational Tryouts" and "Diagnostic Form for Identifying the Personality Tendency and Appropriate Occupation". "Recording Form for Occupational Tryouts" filled by the student in the 8th grade and in the 9th grade were checked and in the case omissions were found the omitted items were revised.

At School B, the scale of the school and the class is small. The facilities and equipment are adequate to facilitate class work based on work experience. Consequently the indices derived from the F-Test are expected to high. At both School A and B as the school year advances the indices are expected to rise. The difference between the averages was derived by one-tailed test.

3. Results

(1) Ratio of alteration and retention in the pattern in vocational choice

Table 1 shows the ratio of alteration and retention. These ratios have been obtained from administering F-Test twice with the same student.

At School A and B, the number of the students who change the occupational choices is larger than the number of the students who retain the choices. No dif-

Table 1 Ratio of alterlation and retention in the pattern in vocational choice

Pattern / School Type	Retention		Alteration		Total Number	
	Number of student	%	Number of student	%	Number of student	%
School A	163	33.6	322	66.4	485	100
School B	21	35.6	38	64.4	59	100
Total Number	184	33.8	360	66.2	544	100

Table 2 Changes in the occupational cluster by J H S male and female students' alterations of vocational choices brought about as the school year advances

Sexes	Schools	Occupation / Grade		Specialized, technical work	Managerial work	Clerical work	Commerce	Agriculture, forestry and fisheries	Transportation, communications	Skilled labor, manufacturing	Unskilled labor	Security services	Service industries	Total number
male	School A	8th grade	N	75	12	23	27	1	26	42	0	21	31	258
			%	29.1	4.7	8.9	10.4	0.4	10.1	16.3		8.1	12.0	100%
		9th grade	N	98	4	49	19	1	14	36	0	11	26	258
			%	37.9	1.6	18.9	7.4	0.4	5.4	14.0		4.3	10.1	100%
		Difference of Persentage		+ 8.8	− 3.1	+10.0	− 3.0	± 0	− 4.7	− 2.3		− 3.8	− 1.9	
	School B	8th grade	N	15	0	1	2	1	1	9	0	2	1	32
			%	46.9		3.1	6.3	3.1	3.1	28.1		6.3	3.1	100%
		9th grade	N	9	0	3	3	0	1	14	0	0	2	32
			%	28.1		9.4	9.4		3.1	43.7			6.3	100%
		Difference of Persentage		−18.8		+ 6.3	+ 3.1	− 3.1	± 0	+15.6		− 6.3	+ 3.2	
female	School A	8th grade	N	129	2	17	17		2	3	0	3	54	227
			%	56.8	0.9	7.5	7.5		0.9	1.3		1.3	23.8	100%
		9th grade	N	110	1	40	22	1	2	3	0	3	45	227
			%	48.6	0.4	17.6	9.7	0.4	0.9	1.3		1.3	19.8	100%
		Difference of Persentage		− 8.2	− 0.5	+10.1	+ 2.2	+ 0.4	± 0	± 0		± 0	− 4.0	
	School B	8th grade	N	14	0	7	1	0	0	1	0	2	2	27
			%	51.9		25.9	3.7			3.7		7.4	7.4	100%
		9th grade	N	11	0	11	0	0	0	3	0	0	2	27
			%	40.7		40.7				11.1			7.4	100%
		Difference of Persentage		−11.2		+14.8	− 3.7			+ 7.4		− 7.4	± 0	

ferences among the schools are observed.

(2) Ratio of occupations selected by students

Table 2 shows the changes in the occupational cluster occurring as the school year advances.

(2)-1 Male students

School A - As the school year advances, the number of students who select professional, technical jobs shows the greatest increase, and the number of those selecting jobs related to transportation and communication, exhibits the greatest decrease.

School B - The greatest increase is seen in the number of students selecting jobs of a technical and manufacturing nature, while the number of students selecting professional and engineering jobs shows the greatest decrease.

(2)-2 Female students

School A - As the school year advances, the number of students selecting office job increases most, while the greatest decrease is seen in the number of students who select professional and technical jobs. Figures obtained from School B are comparable to those of School A.

(3) Indices for the students who alterd the occupational choices and the students who retaind the occupational choices

The index number of the students who have retained their original vocational choices, and those who have diverged from them. Comparison of these two types is based on a) the index for the understanding of requirements and opportunities of the selected occupation; b) the index for occupational selection ability; c) the index for occupational tryout; and d) the index for occupational tryout at school.

Table 3 shows the comparison on the indices obtained in the 8th and 9th grade by the students who changed their occupational choices and the students who retained their occupational choices.

(3)-1 Index for the understanding of the requirements and opportunities of the selected occupations

Understanding of the requirements and opportunities of the selected occupations is the index showing the extent of the understanding of the aptitudes and skills required for the selected occupations.

The indices obtained in the 8th and 9th grade by the male students who retained the selected occupations at School A are respectively 43.9 and 52.0. The indices obtained in the 8th and 9th grade by the female students who retained the selected occupations at School A are respectively 42.3 and 48.7. The difference is statistically significant at the significance level of 1% for both male and female students. The indices obtained in the 8th and 9th grade by the male students at School B were respectively 51.9 and 52.0. The indices obtained in the 8th and 9th grade by the female students as School B were respectively 4[illegible].2 and 49.6. There was no statistically significant difference. At School B the indices were high from the begining grade.

Table 3 Comparison of indices obtained in the 8th and the 9th year by students retaining and altering their vocational choices

	Sexes	Pattern	Number of Students	Grade	Understanding of requirements and opportunities of selected occupational		Occupational selection ability		Occupational tryouts		Occupational tryouts at school	
					M	S D	M	S D	M	S D	M	S D
School A	Male	Retained	77	8	43.9	14.21	66.0	7.07	46.2	11.74	31.2	11.98
				9	52.0	14.64	70.5	6.97	57.6	11.11	42.5	12.72
				r	**0.39		**0.76		**0.87		**0.87	
		Altered	181	8	40.6	15.26	65.5	6.93	45.9	10.97	30.5	10.97
				9	37.7	20.29	68.6	7.10	57.1	10.49	42.2	11.91
				r	−0.01		**0.68		**0.77		**0.76	
	Female	Retained	86	8	42.3	13.75	66.9	6.66	47.2	9.90	31.7	10.47
				9	48.7	14.75	69.6	6.93	58.4	8.44	44.7	9.31
				r	**0.27		**0.55		**0.80		**0.70	
		Altered	141	8	43.8	15.84	68.2	6.59	48.9	10.70	34.8	10.88
				9	42.2	17.79	70.5	6.61	59.8	10.25	47.1	11.35
				r	0.12		**0.76		**0.81		**0.75	
School B	Male	Retained	11	8	51.9	10.94	75.4	3.94	69.0	4.42	58.0	6.76
				9	52.0	14.06	76.5	4.79	79.5	4.71	70.5	3.69
				r	0.51		0.62		**0.94		**0.83	
		Altered	21	8	41.2	11.44	73.2	6.24	68.9	6.96	58.4	7.32
				9	49.6	16.06	76.8	5.91	80.0	4.11	72.4	4.07
				r	**0.61		**0.62		**0.69		**0.34	
	Female	Retained	10	8	46.7	13.53	73.7	4.78	70.7	5.14	64.9	7.19
				9	49.9	11.90	77.2	2.65	83.7	2.99	78.8	4.90
				r	0.50		*0.71		**0.87		**0.79	
		Altered	17	8	44.8	10.30	74.5	5.32	69.7	5.11	64.2	6.78
				9	51.4	12.09	78.5	3.23	83.6	4.01	79.0	3.91
				r	*0.28		**0.47		**0.62		**0.60	

Note T-test**P<0.01 *P<0.05
M Mean value SD Standard deviation
r Correlation coefficient

The indices obtained in the 8th and 9th grade by the male students at School A who altered their occupational choices were respectively 40.6 and 37.7. The indices obtained in the 8th and 9th grade by the female students at School A who altered their occupational choices were respectively 43.8 and 42.2. There was no statistically

significant difference for both male and female. But the indices obtained in the 8th and 9th grade by the male students at School B were respectively 41.2 and 49.6. The indices obtained in the 8th and 9th grade by the female students at School B were respectively 44.8 and 51.4. There was a statistically significant difference for the male students at the significance level of 1%. There was a statistically significant difference for the female students at the significance level of 5%. Consequently the indices rise as the school year advance.

(3)-2 Index of the occupational selection ability

Index of the occupational selection ability is the average of the three indices for the self-analysis, job analysis and occupational tryout.

The student except the male of School B who retained their occupational choices scored higher index, as the school year moved up.

School B - Those who retained their original occupational choice, scored high on the index from the beginning, and no noticeable increase in index is observed, regardless of advancement of the school year.

(3)-3 The index for occupational tryout and the index for occupational tryout at school

The index for occupational tryout is the sum of the index obtained in relation to the experience programmed by the schools and the index obtained in relation to the experience furnished in the entire field of the students life. The index for occupational tryout at school refers to the educational experience programmed within the school's framework.

At both School A and B, both indices rise sharply as the school year advances.

Table 4 Comparison of indices obtained by their students retaining and altering vocational choices in their 9th year at School A and B

Sexes	Patern	Schools	Understanding of requirements and opportunities of selected occupation M	Understanding of requirements and opportunities of selected occupation S D	Occupational selection ability M	Occupational selection ability S D	Occupational tryouts M	Occupational tryouts S D	Occupational tryouts at school M	Occupational tryouts at school S D	Number of Students
Male	Retained	A	52.0	14.64	70.5	6.97	57.6	11.14	42.5	12.72	77
		B	52.0 NS	14.06	76.5 **	4.79	79.5 **	4.71	70.5 **	3.69	11
	Altered	A	37.7	20.29	68.6	7.10	57.1	10.49	42.2	11.91	181
		B	49.6 **	16.06	76.8 **	5.91	80.0 **	4.11	72.4 **	4.07	21
Female	Retained	A	48.7	14.75	69.6	6.93	58.4	8.44	44.7	9.31	86
		B	49.9 NS	11.90	77.2 **	2.65	83.7 **	2.99	78.8 **	4.90	10
	Altered	A	42.2	17.79	70.5	6.61	59.8	10.25	47.1	11.35	141
		B	51.4 **	12.09	78.5 **	3.23	83.6 **	4.01	79.0 **	3.91	17

Note: **P<0.01 NS No Statistical Significance M Mean value
SD Standard deviation

(4) Comparison of the indices obtained in the 9th grade by the students who retained the occupational choices and the students who altered the occupational choices

(4)-1 Index for the understanding of the requirements and opportunities of the selected occupations

The indices obtained by the students who retained the occupational choices were 52.0 for both types schools. The indices obtained by the female students at School A and B were respectively 48.7 and 49.9. There is no statistically significant difference both male and female students.

As compared with the index, 37.7 obtained by the male students at School A, the index at School B was 49.6.

For the female students the indices were 42.2 for School A and 51.4 for School B. For both male and female students the difference is statistically significant at the significance level of 1%. As for indices for those who altered the occupational choice, School B was high than School A.

(4)-2 The respective index number of the occupational selection ability, occupational tryout and occupational tryout at school

School A student scored lower than School B students.

4. Conclusion

Significant numbers of students at both schools altered their original vocational choices, and those of School A students show instability in occupational selection. On the other hand, School B students changed their original selection on an increased desire to develop occupational selection ability.

From these findings it is clear that the small scale classes at scale schools are definitely advantageous in promoting education strengthening the student's ability to select their occupations.

VOCATIONAL GUIDANCE IN THE UNIFIED CONTINUOUS EDUCATION SYSTEM OF THE SOVIET UNION

by
E. N. Zhiltsov

The rapidly advancing technology and economy of the Soviet Union urge all the citizens to enhance their capabilities in specialized knowledge, vocational skill and general arts.

However, it is impossible for an average citizen to master all the necessary knowledge and skill by way of formal education, as the world is inundated with information. That is why the 27th General Assembly of the Soviet Communist Party took up the formation of a unified continuous education system as one of the agenda items.

The proposed system is designed to promote inter-diciplinary technical education in line with the on-going techno-scientific revolution. To begin with, citizens should familialize themselves with today's production technology and work methodology. Then, they would acquire gradually a comprehensive understanding of social evolution based on the materialistic conception of history.

In a modern society, science and industrial production converge with each other as a powerful industrial production is achievable only through science. Production verifies science by way of application, while science renovates production process to realize higher productivity. The substance of human labor is changing under the influence of the on-going technological revolution. In order to respond creatively to the diversifying needs of the country's production arena, one has be equiped with in-depth scientific as well as vocational expertise. Science should be converted into production means, and education should be utilized extensively as a tool to realize such conversion. In order to apply science in production successfully, technology should be taught in close relation with work process and productivity improvement. Based on this philosophy, the continuous education calls for the following activities.

1. In terms of formal education, students are urged to master a desired level of reading and writing capability while fostering creativity. Also, the students are trained to make a proper selection out of information floating around them. They should learn how to use computer to apply information in a creative fashion.
2. Formal and informal educational institutions should be restructured as a unified system capable of conducting continuous education. The continuous education consists of fundamental theory and application in industrial production. The former is to be acquired through classroom learning using textbooks and the latter through the strengthening of ties between educational and productive institutions.
3. A nation-wide system on a new unified basis is to be formulated to re-educate specialists and workers in the field. Heretofore, there did exist such re-training programs in the Soviet Union, but they were executed only on a sporadic basis. The new

system sees to it that specialists and workers be kept abreast of advanced technologies on a continual basis and that in an efficient manner. Corporations, government organizations and other public entities would provide necessary facilities on a permanent basis. Existing educational organizations would also refurbish their facilities in order to satisfy such needs. There is a pressing need to conduct vocational education in all stages of formal education not merely to familiarlize students with professional skills but also to enable them to make a proper career selection upon graduation. The students would mingle with workers of different age groups in the course of education. Ample opportunities of self-learning would be provided. Vocational guidance interviews will be held, employing a new methodology. Through these measures, graduates of general education courses would be endowed with a tolerable level of knowledge and skill on professional career. Industrial skill learning as an integral part of vocational guidance at general education schools is conducted in the forms of "inter-school industrial combinat", inter-school workshops, regular visits at production plants, production work camps, and other pertinent institutions. Technical schools, technicums and production plants would also give helping hand in these endeavors.

New courses added to the curriculum of general education schools include, "Knowledge on the Outside World", "The Basics of Production", "Vocational Selection", "Information and Basic Computer Technologies", etc. A considerable number of hours will be dedicated to career guidance. Industry's co-operation in terms of job training and vocational guidance was enhanced. At present, all general education schools have intra-mural work training facility and industrial production workshops formulated in co-operation with the industry. Under such a co-operative scheme, the industry provides schools with equipment, technology and materials for vocational training. The industry also dispatches specialists and workers to assist vocational training at school.

Many high school students seek temporary employment at production plants during summer vacation. Many schools program extensive extra-curricular activities on industrial as well as agricultural production. The Soviet Union takes pride in the powerful support system of vocational training rendered by way of technology, materials and human resources.

In 1985, more than half a million students received work training in some 6,000 industrial sites. More than two million participated in some 2,900 inter-school work training camps (combinat). About an equally large number of students enjoyed vocational training of general nature by way of intra-mural training program. At present in the Soviet Union, there are approximately a million well-equipped industrial training sites capable of training approximately five million students at any given period of time. (1)

In the 1980-81 school term, about 1.7 million students received production training in come 2,000 work training camps. (2) Although the proposed continuous education system marked a quantum leap as far as the quantitative participation is concerned, further efforts should be made to realize qualitative enhancement both in participation and in program formation. Quantitatively, the number of inter-school work training camps and industrial training cites should be increased to a minimum of three million within next several years.

Vocational training methodologies undergo a dramatics change. Locally available jobs are clearly defined both in terms of labor demand and job description, on

WORK-TRAINING AND VOCATIONAL GUIDANCE ACTIVITIES IN HIGH SCHOOLS DURING THE 1985-86 SCHOOL TERM

	Total Number	Number in Urban Areas	Number in Rural Areas
Inter-school work training and vocational guidance combinat	2,864	1,831	1,033
Participation in percentage against the total number of students	53.2%	73.9%	28.0%
Permanent inter-school workshops	804	543	261
Participation in the above workshops in percentage of the total number of students	3.8%	5.6%	1.6%
Vocational Training Schools participating in the program	1,245	1,013	232
Participation in the above training school program in percentage of the total number of students	2.1%	3.3%	0.5%
Training facilities provided by corporations (in thousands)	948	530	418
Participation by the industry expressed in terms of percentage of the above training facilities against the total number of production units	57.0%	50.0%	66.0%

SOURCE: "THE 1985 ECONOMY OF THE SOVIET UNION", Moscow, 1986, page 501.

record.

—consult the teacher's written observation on academic achievements and extra-curricular activities filed in the form of interview card.

—conduct questionare-type surveys among the students on their vocational interest.

one hand. And on the other hand, physiological as well as psychological aptitude of each student is established so that a student could make the right career selection to secure a long-lasting profession.

Specific vocational training programs are formulated on a region-to-region basis taking into consideration such local factors as labor demand, budget, difference between urban and rural areas, and peculiarities of each school.

Efforts were made to renovate aptitude and human character assesment. Needless to say, a full expression of one's talent through proper career selection boosts his/her productivity and social participation. In the Soviet Union, the following methodologies are employed to ensure that one would choose profession on his/her own rather than being given by somebody else.

—analyse academic as well as work training record. Also check one's physical check

—hold lecture meetings and interviews involving work heros, graduates of vocational training centers, teachers and students.

Psychology and physiology-based tests are conducted extensively, relating to such professions as traffic engineer and laboratory assistant which require special physio-psychological qualifications.

Attempts are being made to formalize psycho-physiological requirements unique to each job category, and to analyse trial result of students in the light of formulas obtained therefrom. Professor Fukuyama's vocational self-analysis theory established in connection with the F-Test would play a significant role in this study.

The F-Test was first introduced in the Soviet Union during the 1979-80 school term to survey vocational interest among a class of general education school in Moscow. Again in the 1985-86 school term, male and female students of a general education class in the city of Bilnyus of the Lithwanian Republic took the F-Test. The test enabled the students to conduct an objective evaluation of mental, academic and physical capabilities. The students had an extensive knowledge on history, law, labor market, literature, etc. of the Soviet Union, which facilitated the implementation of the test.

However, guidance on Prof. Fukuyama's "vocational tryouts" was by no means sufficient. The vocational tryouts are designed to check the student's vocational experience. Although the self-diagnostic capability of the student was proved to be high, a proper pre-test explanation on the test logistics would have tremendously enhanced the credibility of the test. By and large, the students demonstrated a relatively high level of knowledge and experience in the profession they chose for their future career through the F-Test.

Note

(1) PRAVDA, 17th, July, 1986. p. 3.

(2) "Finance and Statistics", *The Statistics Report on* 1984, Moscow, 1985, p. 148.

SPECIAL PROBLEMS IN VOCATIONAL GUIDANCE POSED BY RAPIDLY ADVANCING TECHNOLOGY

by
Arland F. Christ-Janer

Increasingly, technology has many impacts on our lives. We enjoy benefits which enhance the quality of our lives beyond our imagination just a few decades ago. In many ways, technology has done much for mankind. To be certain, the rapid advancements have altered our work environment and our living standards. In the process the world of work has experienced vast changes and has not always fashioned effective responses to offset the ramifications caused by the changes. In this sense, technological advancements have been perceived as creating problems which might better be characterized as challenges. But this situation is changing in many significant ways. For example, the origins of this International Conference on Vocational Guidance are to be found in sensitive, committed and creative insights by Dr. Fukuyama and his colleagues.

How do We Respond to Challenges and Problems Posed by Technology?

Chief among the problems facing effective programs of Vocational Guidance is the swiftness of change itself. Virtually every facet of society is experiencing the confusions caused by uncertainty and ambiguity. To be of significant value to the individual and to the world of work, Vocational Guidance must increasingly be anticipatory in nature or it will help to educate and train workers who will be quickly obsolete. It is just here that educators and employers must communicate more effectively. In a fairly recent study, it was noted that educators and businessmen were widely divergent in what should be the content of curricula. Clearly, this is a problem area that must be addressed; it is of particular concern to those who are responsible for vocational guidance programs.

Further, job (career) identification becomes difficult when such a high percentage of worker needs have not yet been defined because of rapid change. This will continue to be a future problem for vocational guidance. Thus, it is a special challenge to anticipate the skills to be needed and how to identify relevent aptitudes in individuals participating in a vocational guidance program. Again, we return to education which must incorporate better understanding of what skills and training are most needed by employees.

Therefore, the matching of worker with job needs in circumstances involving rapid change requires fundamental thinking about the most effective way to educate people within the scope of their skills and aptitudes. In the United States we are seeing significant emphasis on building partnerships between business, industry and education. The problem here seems to be the lack of professional input by professionals in the field of vocational guidance. And yet, much of the success of these efforts will

depend on the guidance counselors.

A special problem presents significant social ramifications for the employee and his or her family. This important matter pertains to relocation. Jobs may be elsewhere. This may require that vocational guidance view its task in a holistic manner to include the family in an understanding of the new job possibilities and how it might effect the life of the family. For the older person for whom technology perhaps presents the greatest threat of displacement and relocation to new employment, the implications of impact upon the family are very relevant. On the other hand the nomadic quest for work presents many problems. It is estimated that by 1990, 500,000 people will have migrated from oil-producing states to other parts of the country. This should not be seen as a blue-collar problem. It is estimated that Texas has lost 200,000 high-paying jobs in the energy and manufacturing sectors alone. Families are involved. Evidence indicates that prolonged unemployment creates depression, anxiety, drug abuse, alcoholism, spouse abuse and divorce. The potential role of vocational guidance cannot be overestimated.

Vocational guidance for the younger generation presents additional special problems. How are they being educated? Is the educational system beginning at the earliest levels responsive to advancing technology? Does instruction include assessment instruments which assist in defining the individual's aptitudes and abilities as they relate to a constantly changing world of work? What is the best curricular program to prepare the individual for productive employment? In some countries, the host of unemployed - and unemployable - youth bears evidence that education has a way to go in adequately preparing youth for the world in which they must find their way.

In many states in the United States retention of students to graduation from high school is falling. Some find their way to vocational technological schools. They are the fortunate ones. Where do the remainder secure guidance as they search for their futures in the work-force? Education from the very earliest years must be sensitive to the critical role of guidance programs. In my own state - Florida - recent policies have been established to create remedial programs to increase retention in secondary schools. It may be argued that until the early 1990's the demography of the United States job market will not experience radical re-adjustment and most of the new jobs will not be in computer-related fields. Still, we fail in our responsibilities if we do not think in a longer time-frame. Technology will continue to advance.

With respect to the special problems in vocational guidance posed, in part, by rapidly advancing technology, what is being done to meet those problems? Perhaps through the examination of responses by corporations, by education, by governmental agencies at national, state and local levels evidence can be found to demonstrate that progress is being made in identifying and addressing particular problems directly or indirectly created by technology. I believe that much progress is being made.

A recent publication by Dr. Nell P. Eurich, "Corporate Classrooms" reports that corporations are spending in excess of $40 billion annually to train and educate their workers. The number of employee-students is over 8 million, with some estimates as high as 10 million. Astonishingly, the total annual expenditures approach the annual expenditures of all of America's institutions of higher learning, with about an equal number of students. Over 18 million courses are being taken each year, most of them offered "in-house" by the company's own education staff. Where and how does vocational guidance programs fit into all of this? Probably not much, at least which is

discernable. That is a problem and a challenge.

At our conference in 1984, I concluded my remarks by saying "At another conference, might there not be representatives of business, industry and labor to serve as observers and responders? *Jointly* we might engage in long-range planning". I repeat the suggestion.

It strikes me that in focusing vocational guidance solely on educational systems and their responsibilities we are, at least in the United States, missing about one-half of the students taking educational course work - they are adults and career oriented and they are most directly affected by technology. There is little evidence available to indicate how vocational guidance is being conducted in corporate programs. How do we make vocational guidance programs a part of this massive educational system? A problem and a challenge.

New guidance instruments and programs, adaptation of old ones, special training of vocational guidance counselors would be one response. Also, our case must be made to persuade business and industry of the importance of vocational guidance for they are setting up their own educational systems, sometimes offering academic credit and degrees to meet their worker needs in a high-tech society.

In the recent settlement between ATT and employees, it was stipulated that the company would identify and provide training for new positions within the company if the worker was replaced by automation.

The U. A. W. predicts that by 1995 - 225,800 jobs will have been "lost" to robots.

The Carnegie Corporation is sponsoring the Carnegie Forum on Education and the Economy. The purpose is to attempt to determine the needs (employment) of a world economy increasingly dependent upon science and technology.

The Florida Education and Industry Coalition Linkage Commission has been established to examine economic development and education to determine on a constantly up-dated manner the worker needs of industry presently and in the future.

As one examines the responses of corporations, it becomes readily apparent that they are, in fact, responding to technological advances in their own enterprise.

Responses by Educational Institutions

Educators at all levels of the system are not unaware of the nature of the changing times confronting society and, particularly, the challenges of vocational preparation in a time of rapidly advancing technology.

The difficulty facing educational responses lies in the determination of what disciplines, content and programs best prepare students for the technological world in which they will have to live and work. The basic concerns center around apprehension that education that is too technically oriented will be too incomplete. Therefore, we see in the United States many and varied responses, which is good.

Clearly, in the last decade, technology has invaded the classroom beginning in the very earliest grades. Education for careers is a very central emphasis. Educational testing of Princeton has introduced SIGI (System of Interactive Guidance and Information) and more recently, SIGI Plus - which is also designed for adults. These are comprehensive computerized guidance systems. SIGI Plus links values, interests and skills to career opportunities and will allow clients to enter local information such

as regional job outlook and institutional programs. American College Testing has developed a career guidance program in conjunction with their testing for college admission. Many state educational systems have introduced guidance programs to assist students in job selection in the technological age.

An excellent example is the "Choices" program in Florida. It is a state-wide computerized system wherein a person can indicate career interests. The computer will respond by printing out the various types of jobs within the family of the client's interests. It will list the qualifications, inform the client where appropriate courses of study may be found. It lists salary ranges. Also, the client receives information about sources of financial aid. This program is designed to be of use for the older person as well as the high school or college student.

These are but a few examples of how education is responding to the vocational guidance needs of students. To be noted, each system, while using technology, is dependent upon a human factor in the counseling process. A significant problem is that there are far too few guidance counselors in these systems which are attempting to respond to the pressures of the technological advancements confronting the world of work and education for that world.

The F-Test was perhaps a forerunner and model for many career guidance programs. Its focus brought the techniques and approach to the attention of those who were attempting to address the same problems, accented by rapidly advancing technology.

The mentor system of job search is also very important. Many schools and colleges provide opportunities for internships, externships and even short-term release from class in work-study experiences. Some liberal arts colleges are building "bridges" between their faculties and assignments in non-academic settings to sharpen their sense of the interdependent relationships between liberal arts and work.

The major point to be made here is that there is in education a recognition of the impact of advancing technology on our total society and a multitude of responses is being designed and implemented.

It is encouraging to note that, increasingly, education and business and industry are beginning to work together in the development of programs designed to meet the needs and challenges created by advancing technology. Also, the human factor is a part of the focus - concern for the individual in all of the dimensions of his or her life.

Of concern for educators and guidance counselors lies in the area of minority (soon to be majority) education and employment. In large measure, the present educational system is not effectively meeting the needs of these populations in preparing them for work in a highly technological society. Indeed, it is noted that an extremely high percentage of these students do not complete their secondary education. Vocational guidance programs, beginning in the very earliest educational years, are vital if these students are to see the importance and relevance of education and training in their futures. At the moment, we are not "connecting" with these students. There is self-interest in doing so.

Our rapidly aging white middle class population, it has been pointed out, will find its retirement income generated by an increasingly non-white work force. It is in their self-interest to increase educational and occupational attainments by minorities. The aging population has vested interests in supporting advancing technology. In 1950,

there were 17 workers who paid benefits for each retiree. By 1992, there will be 3, with 1 being a minority. Dr. Hodgkinson points out that, for the forseeable future there will be more people over 65 years of age than teen-agers in America.

One of the most major and immediate problems, then, is to use technology to advance the economic base while enhancing the quality of life of all. At the same time, it is critical that the role of vocational guidance be placed in its proper perspective - it is central. Its success will help to assure the economic strength of our nation. At the same time, vocational guidance could open the world of possibilities for those millions of students and young adults who are dropping out of the educational system. Their potential is being wasted because it has never been developed. Vocational (career) guidance is very probably a key to open the door of new possibilities for them.

The world of advancing technology touches the lives of all. Still, studies have been completed to show that a relatively small percentage of jobs in the short-term future will require highly technical skills. In this sense, advancing technology is in itself not the. major problem The service areas of the world of work offer the most job possibilities. The challenge to vocational guidance programs is to help individuals to match with career opportunities best suited for their interests, aptitudes and abilities. The impact of change and shifting worker needs creates a sense of urgency.
The Point-technology is value neutral; it is how we use it that charts the course.

This conference, now and over the past years, has brought international attention to the importance of vocational guidance as an essential key in better meeting worker needs and offering individuals new possibilities and hope. The leadership of Dr. Fukuyama has been profound.

Responses by Governments - National, State, Local

Perhaps because of size, beaucracratic structure and systems, as well as financial limitations, government agencies are slower to respond to rapidly changing circumstances. Also, they tend to be less flexible than educational institutions and business. This is not to say that there is no concern for vocational guidance programs.

Recent national legislation provides for financial aid assistance for older, part-time students who had previously not been eligible. Since it is estimated that by 1992 one-half of all college students will be older than 25 years of age and 20% will be over 35 and that adult education will be the only growth component possible in post-secondary education (Hodgkinson), it is to be quickly perceived that vocational guidance programs will need to be designed for a new population. The expectation of these individuals will be that they are counseled, advised and trained for a world heavily conditioned by advancing technology. State schools, colleges and universities and Boards of Education, Regents, Commissioners of Education must move ever more quickly to meet the challenges. In 1986, the enrollment in vocational schools is up 18% over the past two years. Major interests lie in the areas of computers, paralegal and biomedical. Clearly, the impact of technology may be seen in these choices. In Sarasota County, the enrollment in secondary schools, K-12 is 25,234. The same system now has over 26,000 adults enrolled. The evidence is abundant, people are looking for ways to prepare themselves for the future. Many specific examples could be added; many governmental programs could be listed to supplement those listed. However, the problems lie in the fact that there is too little support for vocational guidance and remedial studies at all levels of the system. As money sources fall short,

among the very first to be cut are guidance programs. In many instances, the guidance counselors are not as highly regarded and rewarded as faculty and administrators and yet, because of the impact of change and technology, the guidance and advising programs are indispensible to the success of the individual's education.

Perhaps the single, most important present need for students of all ages is in the area of financial assistance. Much is being done, however, it falls far short of the real needs. No matter how effective vocational guidance programs may be, if individuals cannot afford to pursue their education, the costs to society will be far greater than any financial outlay made now.

Conclusion

While there have been many responses to advancing technology, from the single teacher in a classroom to whole university systems, in business, industry and labor, in governmental agencies, there is much that remains. Vocational guidance, while facing immense challenges, must be seen as a central concern in order to meet the future. For all nations, that future encompasses change in every dimension of living. The problem is how to make this known to all who are in a position to help.

These International Conferences on Vocational Guidance have focused significant attention on the fundamental issues confronting industrialized nations as they attempt to respond to changes in the ways, assumptions and needs in the future.

One final word, these conferences have always had at the very center of their purpose, a deep, sensitive and committed concern for the individual - his or her career - but more. The individual has been perceived as a person of value to whom we are responsible. Information, statistics, programs have always been tempered by the human factor.

Dr. Fukuyama, we are indebted to you for setting this tone for our deliberation.

RELATIONSHIPS BETWEEN PSYCHOLOGICAL ASPECTS AND VOCATIONAL CHOICE DURING THE PERIOD 1974-1982

by
J. B. Dupont

Throughout the history of science and technology there is often evidence of the influence of great inventions on society in general. Indeed, these inventions more or less changed society, and now, at the end of the 20th century, new technology, computers, robots, etc. confirm yet again this evidence.

Man, for his part, reacts fairly strongly to such change. In real terms how does he cope today when confronted by this new technology? This is the big question to which it is impossible to give an overall and simple answer. In order to find an answer, it would be necessary to set up a controlled survey of several populations over a certain period of time. I myself have had the opportunity to observe one of these population groups over a period of eight years, from 1974 to 1982. And it is this particular group which we will be considering here as a short contribution to topic number four: "The Special Problems in Vocational Guidance Posed by Rapidly Advancing Technology". *

My contribution is extracted from a longitudinal survey of Swiss French speaking adolescents. The survey was of about 500 high school seniors aged 15 to 16 at the start of the period of observation (1974) and who were 23 to 24 at the end in 1982. These were boys and girls who, in general, were looking forward to a university education. In short, we have to ask ourselves what are the psychological dimensions

- in relation to the factor of vocational choice?
- in relation to the factor of the stability of the choice?
- in relation to the factor of satisfaction?

My paper is in two parts:

- the first is a description of the actual survey.
- the second is a presentation of the findings and comments.

1. Description of the Survey

There were two phases in this survey:

- a preparatory period in which to make a vocational choice(1974-76)
- a phase in which to realize the choice (1977-82).

The preparatory phase consists of three testing sessions taken successively in 1974, in 1975, with the third in 1976. Each complete testing session lasted about half a day, and with the help of these tests and questionnaires, we sought to evaluate the following aspects:

* With the collaboration of J. F. Ballif and C. Jobin, research assistants at the University of Lausanne.

- intelligence or mental abilities,
- vocational and avocational interests or leisure activities, school interests,
- work values,
- personality factors,
- biographical data.

(See Appendix A)

The second stage, that of realization, covered the six years following secondary education and here we had to elicit from each participant the answer to the questions:

- what do you do?
- What training or profession have you chosen?
- Are you satisfied with your choice?

These questions were asked first in 1977, that is to say just one year after leaving school. The same questions were asked again in 1979, that is three years after school, and for the last time in 1982 - six years after finishing school, by which time many of the students had finished studying and were employed.

2. Findings and Comments

What do we learn from the preparatory phase? What information do we get from the three sets of responses given between the age of 15 or 16 and 81?

"The comparisons made revealed a development which appeared limited, sometimes even negligible, even if one takes into consideration that this was a lax period of schooling, the years differing from one another in the lenght of time separating each test from the date of the baccalaureat of final school examination. This evaluation is based on the following facts;

- from one year to another the responses, that is the average scores vary very little;
- from one year to another, the factorial structures (within the tests and between tests) proved to be similar: the coefficients of congruence (calculated of each pair of related factors) proved to be highly significant;
- from one year to another the scales and factorial scores appear relatively reliable." (Dupont, 1983).

While pupils are still at school, it appears that their development towards maturity and autonomy is weak.

Before analysing the relationship between psychological aspects and the actual choice made, we looked briefly at the situation of the subjects at the start of the realization period and their position five years later.

On the basis of the recorded results, we can give a breakdown of the actual choices into 12 categories, as for example

- engineers and architects,
- medical professions,
- law and political science,
- economics,
- art, etc.

Appendix B gives the results in detail.

Category for category from the figures for 1977 and 1982, we notice slight

but clear differences between the sexes. On the other hand, after certain regroupings, the actual developments appear more clearly. Three groups can be considered:

- the first group consists of all university education in the sciences and in medecine. For the boys this was 49.3% in 1977 and only 40.7% in 1982 while for the girls this was 20.7% in 1977 and 17.6% in 1982. So we notice a marked decrease, especially among the boys.
- the second group consists of university education in non-scientific subjects: social science, economics, etc. For the boys this was 32.5% in 1977 and almost the same percentage (30.8%) in 1982 while for the girls there is a drop from 41.1% in 1977 to 34.8% in 1982.
- the third group consists of all the other careers and vocational training, generally of a non-university type. For the boys the figures were 18.0% in 1977 and 28.4% in 1982, while for the girls this was 38.2% in 1977 and 47.6% in 1982. In both cases the increase is substantial.

In short, there is evidently a shift from university based careers towards less academic careers. On this point our findings correspond to those of a number of other investigations: the actual realization falls short of the original aspirations. We must yet mention two factors concerning the differences between the sexes:

- in the non-scientific fields there are more females than males while in the sciences there are fewer females.
- females are more numerous than males in training and work at non-university level.

Likewise, our findings here correspond to those of other investigations.

We can conclude from this that tendencies in the results show a picture of reality reflecting not only the milieu of high school seniors in Switzerland but of others as well.

Thus we have tried to reach an overall understanding by relating psychological variables (intelligence, interests, aspects of personality) to occupational stability*, job satisfaction** and the vocational choice (category)***.

Concerning the relations between stability and psychological aspects it is apparent that the stable subjects are usually more enterprising and conventional than the unstable subjects. Stable subjects place value on categories (or branches) of management, business, law and politics; while the unstable subjects place value not only on categories of art and handicrafts but also in leisure pursuits. Stable subjects appear more balanced, the unstable more independant. Stable subjects think they are gifted verbally, psychologically, and that they have leadership qualities, whereas the unstable thing that they have artistic, musical and practical abilities. In short, the stable subjects are cut out to be managers, the unstable to be artists. (See Appendix C).

* We consider stable those subjects (N=235) who do not change vocational category from 1977 to 1982; and unstable, those subjects (N=217) who change category at least once during the same period.

** We consider satisfied those subjects who claim always to be satisfied, and dissatisfied those subjects who express their dissatisfaction at least once during the period.

*** The vocational categories mentioned are listed in Appendix B: unspecified/engineer and architect/ research science/ medical/ paramedical/ sociology/ arts/ law and political science/ economics/ other social sciences/ art/ other careers.

Concerning the relations between satisfaction and psychological factors, the findings are not so clear. In short, those subjects who are satisfied appear to be more conventional, more responsible, more balanced, more approachable, more conscious of their potential, and more gifted at school than the less satisfied subjects. The latter seem to be more artistic, more autonomous, even more anxious.

Concerning the relations between categories of vocational choice and psychological aspects,* the validity of the interests taken into consideration was abstracted from the questionnaires (Holland's personality types, list of careers, hobbies, favourite school subject). A marked increase in validity is evident is these interests and career intentions are considered simultaneously. The method of collecting similar aspepts (interests and career intention) is similar to that used in S. Fukuyama's F-Test. And it is pertinent to emphasize this correspondence. On the other hand, when other aspects are added (values, temperament, mental abilities, type of schooling, father's occupation), the validity is only slightly improved, which is surprising and requires some explanation.

Elsewhere, it is apparent that the validity of the aspects rises noticeably between 1974 (the start of the investigation) and 1976 (the year of making the choice). We believe it is possible to interpret this development as a factor in the progression towards a realistic choice.

Finally, it must be emphasized that psychological factors are better predictors for certain career choices or categories of choice than others. Indeed our test method is more appropriate to categories of art, science and law than to other categories (paramedical, economics, social sciences, etc.). Here, likewise, we have a result which we only partially understand. Analysed yet again slightly differently the same test method can give different results. So we are faced with an on-going problem for which we see no single solution.

To conclude, we must remember that a certain development, certain changes take place in our subjects during the period under consideration and we can relate these changes to certain psychological aspects. However, we are quite unable to say whether these changes are influenced by the new technology. On the one hand, we know little about the influence of technology on the different occupational activities (and some of this technology, computers for example, apply to many fields). On the other hand, even if we knew what influence technology has on the various activities, we do not know how these changes affect the subjects' reaction in their particular choice of career.

The psychologist's approach, which ours is, only serves to highlight the problems, and it must be complemented by other approaches, from other specialists. Only an interdisciplinary method of research will give the true answers to the problem of the role played by technology in employment and careers counseling.

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* See Appendix D.

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APPENDIX A

LIST OF METHODS AND ASPECTS OF INVESTIGATION

- Hollands Typology Theory (evaluation of interests or of professonial "character") : method comprising several methods or approaches (selfdefinition with the help of adjectives; self-esteem; identification with a pattern, prefered or rejected activities, specific choice of career, achievement, etc.; the six grades allow the individual to be classified according to Holland's typology : realistic (R), investigative (I), artistic (A), social (S), enterprising (E), "conventional" (C) (Dupont, 1979).

- Choice of career (evaluation of professional interests) : method comprising a test of 155 careers, those questioned indicating for each career their attitude (attraction or interest, indifference, aversion; different factorial analysis arrives at the following categories : management / business; justice; politics, technical or engineering, sport and outdoor activities; scientific research; medical, paramedical; psychosociology; craftwork; environmental; studies; classical arts; art and design) (Berthoud 198.).

- Hobbies (evaluation of leisure time interests) : list comprising 30 items from which 5 factors are categorised : culture, literature, art; scientific, technical; manual or craftwork; politics and sociology; sport; entertainments; uninteresting hobbies.

- Professional values : typology comprising 40 items corresponding to 5 factors : status; security v. challenge; autonomy v. responsibility; comfort (v. prestige); ideology v. realisation of the self (Dupont & Leresche, 1981-82).

- Personality (Gough's Adjective Check List (ACL) French adaptation of Gendre) : self-definition (self-report) with the help of a list of 300 adjectives from which 5 categories can be defined : balance; sociability; extroversion; independence; anxiety (Gendre, ...).

- Self-esteem of abilities (subjective evaluation of skills) : list comprising 26 items, from which 5 categories can be defined : verbal and psychological; leadership, management; scientific (investigative), numerical (mathematical); practical, artistic; auditive, musical.

- Achievement at school : marks (at Bac. level) common to all sections : mothertongue (French); foreign language (German); mathematics.

- Section : subjects placement - group - latin, scientific or modern.

- Plans : plans made in response to 3 set questions.

N.B. The list does not include some of the methods mentioned in Table 2, namely : typology of "professional attitudes" according to Crites (vocational maturity) which are not applicable to our situation (Ballif, 1980) and performance in aptitude test.

APPENDIX B

DISTRIBUTION OF VOCATIONAL CHOICES ACCORDING TO SEX
(situation in 1977 and 1982).

Category	1977 Boys %	1977 Girls %	1982 Boys %	1982 Girls %
- unspecified	7,5	8,7	6,8	8,6
- engineer / architect	11,6	1,4	10,6	1,1
- research scientif.	22,3	4,8	16,0	3,7
- medical	15,4	14,5	14,1	12,8
- paramedical	2,7	11,6	3,0	12,8
- social (non-university)	2,7	9,2	5,3	12,8
- arts	13,7	20,8	10,3	12,3
- law, political science	9,9	9,2	9,1	10,2
- economics	4,8	1,0	8,4	2,7
- other social sciences	4,1	10,1	3,0	9,6
- art	1,7	2,9	4,9	4,8
- others careers	3,4	5,8	8,4	8,6
	100 %	100 %	100 %	100 %
	(N=292)	(N=207)	(N=263)	(N=187)

APPENDIX C

RELATIONS BETWEEN VOCATIONAL STABILITY AND PSYCHOLOGICAL ASPECTS. (INTERESTS AND OTHER ASPECTS)

- We consider "stable" (N=235) those subjects following one training or career between 1977 and 1982;
- we consider "unstable" (N=217) those subjects changing at least once their training or career between 1977 and 1982;
- the table gives figures for significant differences (S at the threshold at P = .05; TS at the threshold of P = .01) between stable and unstable subjects in the aspects considered either for the whole sample or for girls and boys separately.

Aspects considered	Years when information recorded (1974)			(1975)			(1976)			signif. of observed difference	
Holland's typology personality (scales)	B	G	B+G	B	G	B+G	B	G	B+G	stab.	inst.
- R (realistic)	...	...	...	...	...	...	...	...	...		
- I (investigative)	...	...	...	...	...	...	...	...	...		
- A (artistic)	...	...	...	...	...	...	...	S	TS	-	+
- S (social)	...	...	...	...	...	...	...	...	...		
- E (enterprising)	...	S	S	...	...	...	...	...	...	+	-
- C (conventional)	...	TS	TS	...	...	S	...	S	TS	+	-
List of careers											
- management, business	...	TS	TS	...	S	S	...	...	...	+	-
- justice, politics	...	S	S	TS	S	TS	S	S	TS	+	-
- technology, engineering	...	...	...	...	...	...	S	...	...	-	+
- sport, outdoor activities	S	...	S	...	...	...	S	...	...	-	+
- science, research	...	...	...	...	...	...	...	...	...		
- medical, paramedical	...	S	...	...	...	...	...	...	...	+	-
- psychosociology	...	...	...	...	...	...	...	...	...		
- craftwork	...	...	...	...	...	S	...	...	...	-	+
- environmental studies	...	...	...	...	...	...	...	...	TS	+	-
- classical arts	S	...	TS	...	...	S	...	S	S	-	+
- design	...	...	...	...	...	S	...	...	...	-	+

(stability - cont'd)

Aspects considered	Years when information recorded (1974)			(1975)			(1976)			signif. of observed difference	
	B	G	B+G	B	G	B+G	B	G	B+G	stab.	inst.
Hobbies											
- culture, literature, art	...	...	...	...	S	...	...	...	...	+	-
- science, technology	...	...	...	...	...	...	...	...	...		
- craftwork	...	TS	TS	TS	...	TS	TS	S	TS	-	+
- politics, sociology	...	...	S	...	...	...	...	S	S	+	-
- sport	...	...	...	...	...	...	...	...	...		
- entertainments	...	...	S	TS	...	S	S	...	S	-	+
- uninteresting hobbies	...	...	...	...	...	...	...	...	...		
Professional values											
- social status	...	...	...	...	S	S	...	...	...	+	-
- security	...	...	...	...	...	...	...	...	...		
- autonomy (+) respons. (-)	...	...	...	...	...	S	S	...	TS	-	+
- comfort	...	...	...	...	...	...	...	...	...		
- ideology, realization of the self	...	...	...	...	...	...	...	...	...		
Personality, ACL											
- balance	...	TS	TS	...	S	TS				+	-
- sociability	...	...	...	...	...	...					
- extroversion	...	...	...	...	...	...					
- independence	...	...	...	S	...	S				-	+
- anxiety	...	...	...	...	...	...					
Self esteem of skills											
- verbal & psychological				...	S	S	S	...	TS	+	-
- managem., leader capacity				...	TS	S	...	...	...	+	-
- scientific & numerical				...	...	...	...	...	...		
- artistic, practical				TS	...	TS	...	TS	S	-	+
- auditive, musical				...	...	S	...	...	S	-	+
School achievement (baccalauréat)											
- mother tongue							S	...	S	+	-
- foreign language							...	...	...		
- mathematics							...	...	...		

APPENDIX D

A STUDY OF RELATIONS BETWEEN PSYCHOLOGICAL DIMENSIONS AND CHOICE OF CAREER.

In order to measure the degree of similarity between psychological dimensions and career choice we worked in the follwing manner :

- the effective choices are given in 11 categories (see list in Appendix B), each psychological dimension (scales, factors, biographical data) is attributed a priori to one of these categories according to a presumed similarity between each dimension and the categories of effective choice. As for example the artistic scale (A) of Holland's inventory is obviously attributed to the category "artistic", the scientific scale (I) from the same inventory is attributed to the category "engineer and architects" and also to the category "research scientific", etc. From the responses of each participant, eleven score categories were determined, the score given to each category corresponded to the total of the recorded similarities. Such totals have been calculated for three groups of variables.

- group one is that of interests : all those in Holland's inventory, career list, best school subject, and hobbies.

- group two is that of interests plus intentions

- group three (the total) consists of the two proceeding groups plus the following factors : work value, personality traits, estimation of one's own abilities, type of schooling, and fathers occupation.

The totals of the three groups are standardised and help to establish a "hyperprofile"; if there is a strong correspondence between the stanine, the highest of a hyperprofile, and the category of the actual choice, there is adequacy. The subjects who have this strong correspondence are classified "adequate", the others "inadequate".

The table below shows the main results collected in relation to the final category of the actual career choice as of 1982. The percentages indicates the proportion of subjects categorised as "adequate".

	Global rate of adequacy (%)		
Adequacy between :	Male	Female	M+F
Interests 1974* - Choice 1982	27,8 TS	32,2 TS	29,6 TS
Interests + Intentions 1974 - Choice 1982	36,7 TS	39,8 S	38,0 S
Total 1974** - Choice 1982	38,8 TS	36,8 TS	38,0 TS
Interests 1975 - Choice 1982	33,8 S	25,1 ...	30,2 S
Interests + Intentions 1975 - Choice 1982	43,2 TS	43,7 ...	43,4 S
Total 1975 - Choice 1982	44,9 TS	43,7 ...	44,4 TS
Interests 1976 - Choice 1982	35,9 TS	33,9 S	35,1 S
Interests + Intentions 1976 - Choice 1982	53,1 TS	50,3 ...	51,9 TS
Total 1976 - Choice 1982	56,7 TS	50,9 ...	54,3 TS

* Interests : Holland's personality types, list of careers, hobbies, favourite school subject.

** Total : Interests + Intentions + values, temperament, mental abilities, type of schooling, father's occupation.

THE IMPACT OF TECHNOLOGY ON OCCUPATIONAL CHANGE IN THE UNITED STATES: IMPLICATIONS FOR THE SCOPE AND PRACTICE OF VOCATIONAL GUIDANCE

by
Kenneth B. Hoyt

Introduction

The probable impact of technology on occupational change will surely vary greatly from nation to nation in the next decade. The need for an exchange of views is obviously great. President Fukuyama and Ashiya University have provided, through this seminar, a splendid opportunity for each of us to gain an international perspective on this crucial topic. The entire vocational guidance movement - worldwide - is deeply appreciative.

I am most eager to learn from each seminar participant. In return, I have prepared here a short summary of how the situation in the United States appears to me. This summary presents some basic facts on a number of aspects of the problem. For each set of facts, I have attempted to formulate some implications for vocational guidance.

Expected Occupational Changes in the U. S. A., 1986-1996

The best source of data relative to expected occupational changes in the United States is the *Occupational Outlook Handbook* published bi-annualy by the U. S. Government (U. S. Dept. of Labor, 1986). The 1986-87 edition tells us, among other things, that the civilian work force is expected to grow from 114 million in 1984 to 129 million by 1995 - a 14% increase. Furthermore, women will account for more than three-fifths of the labor force growth during this period. These two statistics alone are helpful in understanding both (a) how some so-called "declining industries" will actually have *more* workers in 1995 than they did in 1982; and (b) how the two-worker family is changing America's occupational structure.

When all occupations are divided into either the "service-producing" or "goods producing" category, about 70% of current occupations are in the "service-producing" category. About 75% are expected to be so classified by 1995. Service-producing industries are projected to account for about 9 out of 10 new jobs between 1984 and 1955. It is only in this sense America can now be said to be a "service type" occupational society. That is, while "service industries" are the fastest growing part of "service-producing" industries, they will, even by 1995, represent only about 31.2 million jobs - a fraction of the total of 129 million jobs.

Similarly, data in the *Handbook* make clear the fact that it is absolutely false to contend America has moved from an "agricultural" to an "industrial" to a "post-industrial" occupational society. Goods-producing industries are sptill alive and well in America. As a matter of fact, they are expected to increase 22% between 1982 and 1995 (from 27.1 million to 33.0 million). Today's popular myths about disappearance of

factory jobs due to the high tech revolution seem to stem primarily from the fact that we have lost about 500,000 jobs in the smokestack industries associated with automobile and steel production (Rosenthal, 1985). While job abolishment is no "myth" for displaced workers in these industries, it would be mythical if one applied that situation to goods-producing industries in general.

If facts such as these are kept clearly in mind, it does seem safe to say work in America has moved from being *primarily* an agricultural society - to being *primarily* an industrial society - to being *primarily* a service/information oriented/high technology society (Naisbitt, 1982; Morris, 1975). No one seems sure what we should call the emerging society or exactly how far we are into it (Reich, 1983; Cook, 1983). What *is* sure is that neither the "agricultural society" nor the "industrial society" has disappeared. True, the proportion of the work force engaged in agriculture in America has dropped from about 40% in 1910 to 3% in 1980 (Rumberger and Leven, 1984). True, in a *relative* sense, service-producing industries are growing at a more rapid rate than goods-producing industries. Still, manufacturing jobs are expected to grow by about 1.3 million jobs between 1984 and 1995 - a 7% increase.

Further insights into America's probable occupational future can be found in statistics on entrepreneurship (U. S. Small business Administration, 1984). Small businesses today furnish two-thirds of all new jobs being created in the United States. Women-owned businesses are growing at an all-time high-in 1983, 2.8 million sole proprieterships were owned by women (4 times the number in 1977). In the 1980-1985 period, entrepreneurs created almost three million new corporations. By 1990, nearly one-quarter of the U. S. population - 60 million people - will be between 30 and 45 years old, the prime ages for launching new businesses.

Statistics such as these hold multiple implications for professionals in the vocational guidance movement. Certainly, they make clear the inadvisability of adding our voice to those urging today's youth to assume, when making career decisions, that the industrial age has disappeared. Similarly, they should help both counselors and those they counsel recognize that, contrary to some popular myths, most of tomorrow's jobs will not be in service occupations. The "certainty of uncertainty" being predicted by many for today's youth is not as inevitable as some have claimed. Finally, it is very clear that vocational guidance professionals are going to have to pay *much* more attention to the topic of entrepreneurial careers than most do today. A steady and continuing increase in the number and variety of small businesses in the United States seems certain.

Expected Rate of Occupational Change: Implications for Vocational Guidance

Serious arguments exist regarding the expected rate at which America's occupational structure will change over the next ten years. Some experts seem to concentrate on emphasizing how relatively little change can be expected (Rumberger, 1984; Kirkland, 1985). They point out, for example, that most of the 19 million new jobs expected to be generated during the 1980 - 1990 period will be in *very* traditional kinds of occupations - e. g. , sales clerks, janitors, waiters/waitresses, truck drivers, and the like. Jobs in high tech industries will represent only a small proportion of these 19 million new jobs. Those occupations requiring the greatest numbers of new workers will not be in high-tech (Samuelson, 1983). Further, most jobs in so-called "high tech" industries will be in "low tech", "not high tech" occupations (Rumberger and Leven,

1984). High tech occupations are, at best, no more than 6.2% of America's current work force and, even with expected rapid growth, cannot be much higher than that by 1995 (Rosenthal, 1985).

Those on the other side of this argument seem to de delight in identifying what they predict will be new occupations that today's youth should be seriously considering (Feingold, 1983; Bridges, 1983; Borchard, 1984). Illustrative of such new occupations are (1) aquaculturist, (2) artificial intelligence technician, (3) energy auditor, (4) genetic biochemist, (5) information broker, and (6)space mechanic. There seems little doubt that new occupations such as these - and many more - will surely be part of America's occupational society by the time this year's cohort of Kindergarten pupils finishes high school.

Vocational guidance professionals must consider *all* these data and *both* sides of this argument as they prepare to help persons choose careers. Personal values of our clients will undoubtedly be major factors in career choices. For exmple, those valuing a high probability of finding *any* job may well opt for those occupations expected to employ the greatest numbers of persons in the next decade. Those who value being in on the "ground floor" of occupations just now beginning to grow rapidly may well opt for occupations that, today, have relatively few job openings.

There seems to me little doubt that those arguing tomorrow's occupational society will very much resemble today's are more nearly right than those arguing the case for completely new occupations. Another U. S. Department of Labor publication (Occupational Projections and Training Data, 1986) contains the following data with respect to occupational growth between 1984 and 1995:

Largest Job Growth Occupations	**Fastest Growing Occupations**
Cashiers	Paralegal personnel
Registered nurses	Computer Programmers
Janitors and cleaners, including maids & housekeepers	Computer systems analysts, Electronic data processing (EDP)
Waiters and Waitresses	Medical assistants
Wholesale trade sales workers	Data processing equipment repair
Nursing aides/orderlies	Electrical/electronics engineers
Salespersons, retail	Computer operators
Accountants and auditors	Travel agents

Clearly, while several of the "fastest growing" occupations are "high tech" in nature, no "high tech" type occupations are included in the list of the 10 occupations expected to employ the most new workers between now and 1995. With an expected 120 + million employed workers, even an increase in a high tech occupation of say, 500,000 employees wouldn't change the overall statistics very much. Vocational guidance professionals need to be cognizant of the remarkable degree of stability to be expected in America's occupational structure over the next 10 years. If this perspective is kept clearly in mind, then relative growth or decline in a given occupation can be interpreted to clients in a much more realistic fashion.

Effect of High Technology on Availability of Jobs

There is no clear consensus in the United States with respect to the effect high technology will have on availability of jobs. Both optimists and pessimists can be

found among manpower experts. Predictions range all the way from those who predict jobs will be plentiful (Main, 1982) to those who claim that, unless drastic countermeasures are taken, unemployment in the United States could, by 1995, exceed twenty-five percent of the labor force (Schwartz and Neikirk, 1984). The official position of the U. S. Government, as expressed in the 1986-87 edition of the *Occupational Outlook Handbook* is:

> "The overall impact of technology will be to increase the amount of goods and services each worker can produce. Output of goods and services is expected to increase rapidly, however, so that employment should continue to increase in most industries and occupations." (p. 16)

Part of this argument centers around the probable impact of robots on availability of jobs in the future. The robots are coming. That's for sure. It appears that one robot displaces approximately 1.7 workers in an assembly plant and 2.7 workers in a manufacturing plant (Main, 1982). The fact that, to date, robots appear to have replaced more U. S. workers in the automobile and steel industries than in clothing and apparel industries seems to have more to do with relatively high wages of auto steel workers than with susceptibility of each industry to robotics. There seems to be general agreement that, if robots can deliver the same skills as humans at the same or lower hourly cost, it is preferable to use robots. After all, as Clapp says, "robots don't unionize, get pregnant, call in sick, or drop Twinkies in the machinery" (Clapp, 1983).

One apparently conservative argument holds that, while technology destroys some jobs, it creates others. For example, it has been predicted that robots will eliminate 100,000 to 200,000 jobs by 1990 while creating 32,000-64,000 new ones(Hunt & Hunt, 1983).

Questions of probable availability of jobs in the future extend beyond simply the impact of high technology on job availability. For example, the problem in the United States is further complicated by the great increase in the various subpopulations seeking to enter the labor force. The growing numbers of women, structurally displaced middle age workers, minority persons, illegal immigrants, and senior citizens seeking jobs has greatly compounded the prediction problem over what it was when the prime source of new workers was expected to be recent school leavers. As noted earlier, the U. S. Department of Labor can and does make 10 year predictions of numbers of persons likely to be *employed*. It does not, however, make similar predictions regarding numbers likely to be *unemployed*. Thus, data based predictions of how many will be unsuccessful in seeking employment are not available.

The capability of robots to displace workers is unmistakable - and is growing rapidly at the present time as expertise in artificial intelligence develops. But robots cannot really *care* about persons with whom they work in a human way - and some experts feel this, in itself, will be enough to assure "the office of the future will keep a human face" (Kirkland, 1985, p. 43). Further, robots haven't yet become cheap enough to be good investments for most small businesses - and that is where a majority of *new* jobs will be found in the coming decade (U. S. Small Business Administration, 1984).

Even if assumptions of very rapid technological diffusion are accepted, it has been predicted that the *maximum* number of jobs to be eliminated by the year 2000 is

20 million - or 11% of all the jobs that would exist in the absence of further technological diffusion (Rumberger & Leven, 1984).

Several implications for professionals in vocational guidance are obvious. They can be briefly summarized as follows:

1. No matter how many persons lose jobs because of technology, the human need of all human beings to work will remain. If, for some persons, that need cannot be met through paid employment, then we must provide help in meeting it through unpaid work done as part of productive use of leisure time.
2. Workers whose jobs are displaced by robots are very likely to find it necessary to enter occupations with lower pay scales than those they formerly held. This will make serious vocational guidance problems both for individuals and for families.
3. The continuing growth in both service-producing industries (where a presonal touch is an important ingredient in success) and small businesses (that cannot afford robots) hold great implications for how vocational guidance professionals deal with clients. The importance of human interactions in career decision-making is almost sure to increase.
4. High technology *will* have *some* impact by destroying some current jobs while creating others. Its greatest impact seems likely to be on the number of times a given person is forced to change occupations during his/her career.
5. The ability of any nation to compete successfully in the world marketplace is a function of producing higher quality products at lower costs. To whatever extent that goal can be better met by robots than by people, robots can be expected to dominate. The reverse is equally true. The challenge to vocational guidance professionals clearly includes encouraging clients to produce quality efforts at a wage that enables the employer to make a reasonable profit.

Effect of High Technology on Education Required for Jobs

American experts strongly disagree about the likely impact high technology will have on the amount and kinds of education required to fill tomorrow's jobs. Some emphasize the expected increases in worker dissatisfaction growing from a combination of a much better educated work force and the "de-skilling" of many occupations made possible by high technology (Leven, 1983). The general principle being expressed here holds that, as machines become more sophisticated through applications of high technology, the knowledge required to operate such machines declines (Rumberger & Leven, 1984).

Others seem very optimistic regarding the positive potential of high technology for relieving the drudgery of routine tasks, for freeing individuals to be more creative in their thinking, and for multiplying options available to workers with respect to both where they work and when they work (Aspen Institute, 1982).

Most of the U. S. literature on this subject, however, seems to make dual kinds of predictions; i. e., they predict that occupations will become more challenging and exciting for those in highly skilled occupations while simultaneously becoming even less meaningful than today's jobs in occupations at the lower end of the occupational wage scale (Edgerton, 1983; Main, 1982; Schwartz & Neikirk, 1984).

The basic argument is clearly seen in the following contrasting statement:

> "…future job growth will favor service and clerical jobs that require little of no post secondary schooling and that pay below average wages" (Rumberger & Leven, 1984).

> "We are moving from a work force in which 38% have the…skills associated heretofore with the college-bound to a labor market in which nearly half the new hires will be expected to be so qualified" (Honig, 1985).

Obviously, both can't be right! If we return to the *Occupational Outlook Handbook* (1986-87 edition) as a prime source of data, the following quotes are germane:

> "Between 1970 - 1984, employment of college graduates grew 127%…the proportion in professional technical/managerial occupations declined.. because.. (they).. did not expand rapidly enough. As a result, 1 of 5 college graduates (1970-1984) took jobs not usually requiring a college degree. This oversupply of college graduates is likely to continue through the mid 1990s" (p. 14).

> "Through the mid-1990s, most jobs will become available as the result of replacement needs... Occupations with the most replacement openings generally are large' with low.. training requirements" (p. 21).

Another set of implications for vocational guidance professionals seems apparent here. These implications include:

1. It should not be surprising to discover that most of tomorrow's jobs are expected to require no more than a high school education. After all, that's true for today's jobs and, as pointed out earlier, profound change in the total occupational society will not occur very rapidly.
2. It is not necessarily inappropriate for vocational guidance professionals to continue helping their clients attend four year college/university settins. After all, (a) the *Handbook* provides clear evidence demonstrating that chances of having no job at all decline as one's educational level increases; and (b) college programs that lasted 4 years or longer provided qualifying training to more workers than all other types of schooling combined (Bureau of Labor Statistics, 1986).
3. With the sizeable oversupply of college graduates expected to continue well into the 1990s, vocational guidance professionals have a clear responsibility to include an emphasis on alternative career planning for those whose college degrees are not directly useful in the labor market. This topic must be included in counseling.
4. There is clearly a need for vocational guidance professionals to increase their emphasis on helping persons consider postsecondary educational opportunities at the sub-baccaularate level - particularly in technical education.
5. In discussing educational plans with clients, vocational guidance professionals must emphasize more than the goal of education as preparation for paid employment. As high technology continues to influence occupational change, it becomes more and more important that vocational guidance professionals help clients see work as an integral part of total lifestyle. There is a need to increase the perspective we provide clients in vocational counseling.
6. The fact that more workers received the specific training needed for their jobs through on-the-job (OJT) training than through any form of schooling is

significant here. The growing presence of employer provided training is important for vocational guidance professionals to convey to those they counsel.

High Technology and the "Declining Middle"

A considerable number of experts have projected the future U. S. occupational society to be one where a relatively small number of highly skilled workers and a somewhat larger number of very low skilled workers will find the "middle" of the occupational society occupied by robots and other forms of automation (Kuttner, 1983; Leven, 1983; Schwartz & Neikirk, 1984). Others say predictions of such a two-tier work force seems palusible only if our efforts to meet training needs of the displaced, the underemployed, and the unemployed are insufficient (Harris, 1985). The logic of this argument is undeniable – i. e., it is not difficult to envision conditions where machines of various kinds do most of the work leaving many persons with, in effect, no productive societal contributions to make in the occupational society.

Opponents of this point of view also present formidible arguments. Samuelson provides data indicating that the relative percentages of total income distributed among various quintiles of employed workers has remained remarkably steady over several decades (Samuelson, 1983). Kirkland contends that the concept of the "declining middle" is a statistical fluke caused by a U. S. Census Bureau effort to improve measurement of family income distribution. At the same time, he hints that the continuation of middle income *families* may be largely due to the rise in two-income households and that, if this condition didn't exist, statistics might, indeed, show a "declining middle" (Kirkland, 1985).

The most compelling data, in my opinion, are those presented by Rosenthal showing that, between 1973 and 1982, the percent of total employment in the 1/3 middle earnings category actually *increased*. Additionally, he has produced data demonstrating that one of the expected outcomes of moving to high tech industries is to increase – not decrease – the growth of middle income jobs. Furthermore, his data are based on *occupational*, not *family income* statistics (Rosenthal, 1985).

The implications of this argument – and all the data on both sides – for vocational guidance professionals include:

1. The "declining middle" phenomenon, while common in today's popular literature, cannot, at present, be well validated with hard data. It would not be advisable to counsel persons today as though an occupational society with a "declining middle" is something they can expect soon.
2. It may well be that the "declining middle" phenomenon will come into existence 20 to 30 years from now. Thus, it is a topic that should be a part of today's vocational guidance conversations. Vocational guidance professionals will not be fair to their clients if they pretend the possibility of the"declining middle" doesn't exist.
3. To whatever extent any given worker at the lower skill levels of the occupational society finds the "declining middle" to be a reality for him/her, vocational guidance must include discussion of how such workers can continue to maintain positive self concepts and feelings of self worth in total lifestyle.

Concluding Thoughts

The impact of high technology on the occupational structure clearly varies –

and will continue to vary - from nation to nation. Thus, the special problems in vocational guidance posed by such technology must also vary from nation to nation. This paper has approached the problem only from the standpoint of the United States of America.

In the U. S. A., it is clear that high technology *is* having an impact on the occupational society, and so on the challenges for change in vocational guidance. It is equally clear that neither the magnitude nor the rapidity of change brought about by technology is as great as some writers seem to suggest. Rate of change is, to be sure, more rapid than in the past and, as high technology emerges, the rate of change will increase still more. Yet, in viewing the U. S. occupational structure as a whole, it seems unlikely that high technology will have great impact on the basic nature of the occupational society at least up to the year 2000.

This, of course, does not mean that the individual jobs of many workers will be unaffected by high technology. That simply is not true. High technology will require many workers to adapt to new tools and new procedures even while remaining in the same job and in the same occupation. The adjustment problems associated with such change pose significant challenges for vocational guidance.

The major challenge to vocational guidance being posed by high technology is that of finding ways of helping clients retain a basic commitment to work as an important part of their total system of personal values. At the same time, we must also help our clients fit the concept of work into total lifestyle in a meaningful and satisfying manner. This includes helping persons plan for productive use of work as part of leisure time.

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CAREER EDUCATION AND THE CHANGING STRUCTURE OF WORK

by
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The impact of high technology is presently revolutionizing the economic and employment patterns of our nation. New occupations are emerging rapidly, while many other occupations although retaining their current occupational titles are experiencing vast changes in both the content and nature of the job. The existing literature on the impact of high technology on employment patterns present mixed scenarios. On one extreme some futurists predict that there will be less need for skilled workers because machines will take their places, while on the other extreme other futurists predict that there will be a need for more skilled workers because the machines will require a significant increase in highly trained workers. It can be seen that it is quite difficult to predict what occupational structures will exist in twenty or thirty years from today or what specific skills and knowledge will be required by changing occupations.

All of the conditions cited present a dilemma to educational institutions because it becomes difficult to plan for future programs when they do not know how to prepare for the future. One of the major problems faced by educational institutions is the fact that many educators have a strong reluctance to change for varied reasons. Hence, educational institutions are always about 5 to 8 years behind technological advancements in business and industry. In the past, the lagtime was not crucial because new technology that affected jobs appeared periodically and on a limited scale so change could come about gradually. However, with the introduction of the microprocessing technology the number of jobs that are affected by high technology have increased beyond anyone's comprehension. Changing technology will be a fact of life in all work environments. Learning to use new machines and new methods in doing a job will also be a continuing process for everyone.

With all the rapid changes that are occurring in the world of work, it seems that the educational institutions have been left at the starting gate. The problems being faced by vocational educators in keeping up with technological changes are only beginning. Much of the nation is now faced with the problem of upgrading or retraining vocational education instructors. Vocational curricula and facilities also need to be revised or changed, and a major investment in purchasing the machines and equipment spawned by high technology is also a need that must be met. Another serious problem faced by vocational educators is the lack of a systematic method to identify and develop job tasks to keep abreast with the changing work environment, as well as to reassess their curricula. Therefore, vocational educators may be spending important time and money in developing programs which teach obsolete or low priority skills and knowledge.

In line with the needs of the teachers, teacher training programs, textbooks, and other learning materials used in vocational education need to be updated. Vocational training textbooks are becoming obsolete as soon as they are published because of the fast changing nature of the job environment.

A vital partner of vocational education is the vocational counselor. Vocational counselors are also feeling the need to be re-educated about the new work environment in order to provide relevant career information. Many new occupations are emerging, and many of the familiar occupations that they know about are either changing or have changed drastically. Some of the familiar jobs may no longer exist.

Some of the familiar counseling tools such as assessment instruments needed to assess a student's compatibility with occupational requirements are quickly becoming outmoded or obsolete because many of the job structures and environment are radically changing.

In addition to the impact of high technology on the work and educational environments our societal and economic structures are also changing. Many people today do not realize the impact of what is happening around them because they have not been personally affected. However, for those thousands of workers who are being displaced or are faced with relearning new skills for their jobs it has become a time of trauma and of uncertainty. These workers who have been displaced from work that they considered important and permanent have had a rude awakening. How will it affect them psychologically? How will these problems impact on vocational education and counseling?

Futurist such as Marvin Cetron are predicting that many people will become more homebound because many things will be conducted through the home, such as banking, shopping, entertainment, school and even work. As these changes evolve within a community, life styles will change. How will these life styles affect the economic and employment structure? How will vocational training and vocational counseling be affected?

From the brief scenarios that have been presented, it seems that the role of vocational counselors will become more complex as technology impacts on education, society, and the work environment of our country. High technology will be creating heavy demands on counselors because as students plan for the future, counselors are responsible for helping the students to make career decisions on an uncertain future. The only sure thing that one can expect is change. Counselors must become perpetual learners so that they can help to bridge the gap between technological advancements and educational change.

Although it is realized that vocational educators and counselors must begin to respond to new developments more readily and need to acquire information faster to enable them to anticipate the changes and respond appropriately, it is becoming more difficult to know how best to prepare young people or retrain adults for successful employment in a future whose structure can only be dimly perceived. As difficult as it may be, planners and policy makers must make decisions based on the best available information.

VOCATIONAL GUIDANCE AND TECHNOLOGY'S PROMISE BRINGING THE FUTURE INTO FOCUS

by
Dorothea Z. Kuritzkes

I. Our Changing Work Environment

One of the most famous characters in American literature is Rip Van Winkle, who took a nap that lasted 20 years. When he awakened he was astonished at the changes that had taken place. A modern-day Rip Van Winkle need only figuratively blink his eyes to find changes even more amazing. Technology has transformed society, seemingly overnight.

John Platt, a humanist scientist, states that we are "... passing through an evolutionary leap of unprecedented magnitude". He compares the advances of the last 40 years "... to the highest jumps in the whole 4 billion-year history of life on earth, if judged by their long-term consequences".

Modern electronics has affected every facet of our lives, but none has been more drastically influenced than our workforce.

In the late 18th century the Industrial Revolution saw machines replacing human muscle power. In the late 20th century we are seeing human brain power being replaced by computers. We are part of a "microelectronics revolution". Our industrial society is undergoing a profound transformation. Included in that transformation is a metamorphosis of the workplace.

Numerous jobs are being changed in fundamental ways as microprocessors and other technologies invade the office and the factories. For white-collar offices, large segments of secretarial and clerical work are automated by word processing equipment. The printing industry is being revolutionized by electronic typesetting and photocomposition. Electronic mail is replacing written communication. Banking, insurance and transportation are becoming increasingly automated. Computer terminals are commonplace in retailing; inventories are taken and tallied electronically. Robots are making their presence felt in traditional industries and will do for manufacturing what mechanization did for agriculture: increase productivity while eliminating many existing jobs. Architects are using computer-aided design processes; lawyers have access to databanks; and doctors can use electronically sophisticated diagnostic techniques.

Americans now wear electronic digital watches, use hand-held calculators, conduct banking with automatic tellers, watch their food and books checked out by laser terminals at grocery stores and libraries, and sit in front of video display terminals at work.

Viewing history as one great continuum, we see that living standards have improved in each succeeding generation as technology has advanced, yet change has not been without substantial costs to some segments of the population in various

employment areas.

The federal government's Bureau of Labor Statistics has predicted that the expansion of the lowest-skilled jobs in the American economy will vastly outstrip the growth of high-technology jobs. While employment for engineers, computer specialists, and other high-technology professionals will grow almost three times as fast as employment overall, these occupations will generate only about 7 percent of all new jobs during the rest of this decade. As a whole, employment growth will favor the low and middle-level occupations, with 90 percent of the new jobs in services, rather than manufacturing.

Job projections aside, there is no question that high technology will have a profound effect on jobs and the skills necessary to perform these jobs. Although the majority of new jobs may not require advanced technical skills they will probably be technology dependent, that is, the use of technology will be involved in some way in most jobs, whether it's through an electronic cash register with computerized inventory control or through sophisticated computerized diagnostic screening such as the CAT scan.

Tomorrow's workers will need different types of skills from those of today to function effectively in the changing economy. They will need to acquire new knowledge to adjust to rapid technological change and they will probably have to learn new skills rather than more demanding ones. However, they will have to be adaptable since they will undoubtedly change careers several times during their working life. They will have to understand and use technology in the workplace and, through continual retraining, adapt to the rapid changes it creates.

II. The Workforce of the Future

If workers and businesses are to make the adjustment to the jobs of tomorrow, a number of basic demographic and institutional issues must be addressed today.

First, we must recognize that there has been a dramatic slowdown in the growth of the American workforce. The workers of the 1970's and the 1980's are the products of the post World War II baby boom. This population "bulge" is petering out as we enter the 1990's and move to the 21st century.

A second basic issue that must be confronted is the continued expansion of female employment. Indeed, until the mid 1990's the major source of new workers will be women. Each year for the balance of this decade, almost one million women will come into the workforce. Two of every three new entrants will be women. Integrating such vast numbers of women into the workforce is a major social challenge.

A third concern is the aging of the workforce. On the positive side, the portion of the population aged 25 to 44 - generally considered the most productive core - is growing, opening the way for increased productivity of workers in this age bracket who can be adequately trained. On the negative side, there is the trend towards early retirement, depriving us of skilled workers prematurely. A valuable portion of our workforce is having a shortened productive life. Training programs are needed to replace them as they retire, or major shortages will occur.

A fourth demographic issue is the growing number of adult workers who are dysfunctional. More and more unemployed Americans, including those who have lost their jobs in the automotive, steel, textile and apparel industries, lack either the

academic or functional skills required by the new jobs emerging in the workplace. If these people are to work again, they must be retrained and perhaps even relocated.

It is well established that we can no longer speak in terms of lifetime careers. The days when an individual learned a skill and could count on it for a lifetime, or at least for several decades, are gone. It is clear that skills required of workers will change over their working lifetimes. In the future, technological advances will come at an increasingly fast pace. Specialized job skills will be more rapidly rendered obsolete and the once-familiar work environment will change at a bewildering rate. Some labor analysts predict that workers will "turnover" careers every decade with major revisions occurring every 2 years.

III. Educating for Tomorrow

It is incontrovertible that ours is an information society requiring a trained, skilled workforce. Our schools have the responsibility of producing that workforce.

In an information society the schools must give students an understanding of the technologies that are shaping their lives and creating new patterns of job opportunity. Thus, information technology becomes the object of study as well as a tool of learning. As we move from labor intensive to knowledge intensive work, investment in human capital becomes an economic necessity. It raises the need for an educational system capable of creating and sustaining more knowledgeable graduates who are disposed toward continuous learning. We must redefine our notion of literacy to include technological literacy.

Technological age literacy now requires both the possession of, and access to, the competencies and information needed to sort, analyze and synthesize great quantities of information. Knowing how to use a computer, for example, is insufficient if one cannot process the accessed data.

The New York State Education Department, in response to the aforementioned changes occurring in the world of work, has implemented certain requirements for occupational education programs in our schools. The requirements begin in junior high school with an emphasis on the development of broad, transferable skills in grades 7 through 10. These skills include such areas as career planning, problem solving, decision making, technological literacy, understanding of the basic economics of work and resource management. The occupational education program is designed around broad clusters of occupations rather than narrow, specialized programs as has traditionally been the case. In grades 9 and 10, students following an occupational education sequence will complete a minimum of one unit in Introduction to Occupations, which focuses on skills, knowledge and attitudes applicable to a variety of occupations and career options. The occupational education program will prepare students in grades 11 and 12 for a choice of jobs rather than one specific job. In New York State education for tomorrow focuses on broad vistas rather than on narrow occupational specialties.

IV. Vocational Guidance: The Critical Factor

Twenty years ago, the talk was of retooling American industrial plants. Today the talk is of retooling American workers, American schools and American training systems.

This represents one of the most significant attitudinal changes to evolve in

the 20th century. People will have to "learn how to learn", to think and to communicate more effectively than ever before. They will have to be able to do so with a flexibility to match the fast changing demands made on them by the workplace of the future. People will have to learn how to relearn a skill and how to adapt it in a constantly changing and evolving job, and they will have to do it the rest of their employment lives.

In the last two decades, as the American marketplace absorbed millions of first-time workers, and while some old jobs disappeared and new ones were created, the importance and need for vocational guidance has intensified. The need to know what the employment trends are, what they mean and how knowledge of them can be used to benefit society and the individual worker, is greater than ever before.

Consequently, the New York State Education Department has recognized that vocational guidance must be an integral part of the education process and has mandated it in New York State. No student may now pass through the New York State school system without exposure to the decision-making process in occupational choice.

The information age that is so drastically altering our workplace also can give the average individual information to help him or her shape a safe, sane and reasonably secure future, witness the Fukuyama Profile. By knowing what to look for, and what to do when we find it, the job search can be more fruitful and less fearful. Vocational guidance has truly come of age in the 20th century.

NEW TECHNOLOGIES AND GUIDANCE IN THE INDUSTRIALLY ADVANCED COUNTRIES

by
Jean PELLERANO

"Grey matter is becoming the true raw material"
Michel SERRES

During a late interview, Michel SERRES, a french philosopher, one of those who deeply believe in some positive change in knowledge and culture, was stating we are witnesses to a complete transformation of relations between science and society, which means that, in all respects, science was becoming an history mover, in so imposing a new philosophical system, a new way of considering mankind.

Foretelling the bringing-out of a new book named "The instructed third", he said his purpose had been to discriminate more accurately what future education will be, that is to say neither scientific learning specialized to the utmost, nor such a solely literary education as was once given. In short, he would like to set bridges between every up-to-date knowledge, so that new mankind may rise, of level-headed human beings, mastering both exact sciences, social sciences and literary culture at large of course.

Indeed, what can we see? Our times are distinguished by technological poles of development emerging and spreading through every industrial area, involving a deep alteration of implements, of technologies and deeds, first of all, as a wave would.

It gets clearer every day that we shall be able to bring the outstanding alterations off and to ensure our industrial rise, through a complete adequation between our educational system and the transformation our technological system requires only.

But yet, obstacles are still very many and mainly of three kinds:

- *social*, because of a working life organization deprived of motivating occasions and interest, combined with too traditional a way of considering hierarchy and tests in selecting picked leaders,
- *psychological*, because of behaviours and mentalities unwilling to effect alterations,
- *educational mainly*, because of an academic system evolving only too slowly and a very unsufficient level of technical culture.

This challenge to education is meant to meet some requirements of first importance:

- to give access to at least 80% people of similar age to level IV (technicians) with the help of different cultural and technical ponderations, so considering intelligence as a priority investment.
- to unmake rules and liberalise society in order to change it into a setting propitious to creation and invention.

- to improve production quality standards.
- to discriminate a few technological poles of which vitality and mobilizing abilities will allow identification of the main technical, structural and cultural obstacles, actually impeding industrial areas development.
- to promote creativity and innovation.
- to set back small and medium-size companies in their deserved place.
- to develop selling abilities.
- to learn how to foresee and run weighted risks.

To achieve these ends and before any necessary effort in mobilizing the entire working population, the decisive part must be acted by educating these young generations, owners of our future, by improving their cultural and technical abilities, and by the way developing such qualities as:

- ability to make rational use of news
- ability to define problems adequately
- ability to organize freely
- ability to argue rationally
- ability to plan one's own achievement
- ability to cooperate and work with others
- ability to self-training
- ability to communicate

In such a regard, *Education*, which must affect every youngster, and *Guidance* are closely linked: Education has to reniew the contents of its courses in opening them up to actuality and the whole world, but first in using differentiated pedagogy to let every one every chance to develop their specific potentialities.

Through its differential aspects, guidance can help young people determine what curriculum trend is more suitable and gradually help them to make a success of their vocational settling, in compatibility with economical needs.

So, while a continuing process, guidance is becoming bi-polar, as far as it is meant to follow young people from their start in secondary school up to the working world:

- it plays a great part in *educational action*, in helping to observe and evaluate young people (differenciation function), in showing teachers ways of including fundamental ideas in their lessons, as representative of our economical and social world (information function), in making communication between social partners easier (communication function)
- it plays a great part in helping young people *build up and carry into effect a vocational project* during their educational and social settling. It gives them implements to choose (educational function), it extends their knowledge of jobs, employment development, new prospects given by new technologies (information and working experience function), it counsels them individually (psychological help, vocational counselling), it uses guidance and training technics in terms of vocational settling.

So guidance is becoming the very finality of every educational action, and gets its full meaning in promoting individual motivation and mobilization, and in allowing a better collective correlation with employment.

TECHNOLOGY AND RESPONSIBILITY

by
Hermann Röhrs

Technology in the Context of Educational Inquiry

Technology has been a constant concomitant of human development on our planet. It has thus been one of the decisive factors in the structuring of human life, both private and professional, right up to the rise of the industrial society. The same is true also of the present post-industrial phase, the distinguishing feature of which consists in bringing all areas of public and private life into the domain of the computer and of information theory. The takeover by the computer of numerous functions in the information society of a post-industrial character brings with it, not only a decisive shift in professional activity but also a world-wide presence of communication and the opportunity for storage (as information) of data which have proliferated to an infinite degree. The result of this has been a number of new tasks for the work of education, together with an increase in non-formal education (Bell 1976; Naisbitt 1984). Knowledge of information systems and ability to deal with them critically are thus an important prerequisite, indicated by the concept of "computer literacy".

Micro-processors are the nucleus of computer work. As such they have a decisive effect on social life similar to that exerted in earlier times by the steam engine, the electric motor or automation. Not only do they bring about new forms of society; they re-structure working life. Not only working hours are subjected to reduction; the opportunity to work is itself reduced. The creation of new jobs in the electronics industry bears no relation to the loss of job opportunities, with the result that the expression "collapse of work" has a deeper justification.

In addition, the introduction of computers and robots produces a mediating effect which limits human activity to programming and to corrective functions of guiding and supervising. The criteria proper to work, those of responsible planning, organising and checking, are thus largely absorbed in the preliminary programming process. The extra-functional excellences thus acquire increased significance and further development.

This metamorphosis of the work process must find its recognition in professional training. Like the educational process in general, professional training in particular should not be regarded as an appendix to this development. It is desirable rather to use one's own research as a basis in an interdisciplinary combination with the labour and social sciences in order to illuminate these processes critically and to join in organising them responsibly. Since in scientific orientation training/receives an important leading role in this process, and not simply a task of transformation, the mutual relationship of training and technology is of central importance for future social development. For these reasons the dialogue between the science of technology, the

philosophy of technology and educational science, which is consciously introduced here, s essential.

Life sub Specie Technicae et Machinae

An obvious characteristic of modern technology is its ever-present quality and its capacity for continual development.

The Ethical Aspect

As an intellectually social being, man is dependent upon technology as a way of organising the world. Technology affords him, as an "imperfect creature", the possibility of overcoming the "lack of organs", either through "replacement of organs" or "fortification of organs". "A man who travels by air can exemplify all these three principles in one; the aircraft replaces the wings we never grew, it surpasses all organic achievements in the area of flight and saves us all personal effort in transporting ourselves over great distances" (Gehlen 1957: 8).

The reverse side of the coin, the danger that technological organisation leads, in many cases, to over-exploitation of raw material and destruction of the ecological balance, has been repeatedly pointed out in recent time; the most alarming of such warnings is the Club of Rome study "The limits of growth" (Meadows et al., 1972). The questionably ostentatious triumphal progress of industrial technology is liable to the danger that it will have to paid for with the ruin of mankind, with "programmed suicide" (Gruhl 1975: 293).

The price in real terms of this technological development is the daily occurrence of accidents and overloading of the environment, as well as what Heidegger termed "recovery" ('ΑΛΗΘΕΙΑ). Heidegger refers to the Greek concept of ΛΟΊΗCIC (which means "to bring out into the open") and interprets technology as the opportunity to "recover" that which is stored up as a potentiality in nature (unknown to it). "Technology is a method of recovery" (1962: 12). Recovery is opening-up or verifying, and as such it is a continuation of nature. Chernobyl has made us acquainted only too well with the anti-human sense of "recovery"; it means a falling away from the saving power of the laws of nature, which assure man his place in the cosmos as one of its components. The laws of nature, elicited from her and operating under man's responsibility are capable of operating against him, since man and matter are in the last analysis unpredictable safeguards, which offer no protection against breakdown.

Technology introduces a process in which man not only puts into action against nature the laws he has elicited from her, in which he utilises her natural deposits and sources of energy, but in which he himself runs the risk of falling out of the complex, once this is destroyed. These side-effects of technology are present in nature itself, if nature is lost in "production" and loses its standards as a result. Homo technicus must incorporate in his actions and in his organising that standard of wisdom which confers on him the rights of a native son in the tradition of humanism and makes him homo technicus sapiens. As a result the return to "inner experience" and its educational illumination become necessary. Hans Sachsse, the representative of technological philosophy, who himself has had many years' experience as an industrial chemist, has every reason to make the critical remark that "in our programmes of education instruction in internal observation, in individual experience, is not to be

found" (1978: 255).

The establishment of an equilibrium between "will" and "can" has been a basic law of anthropology since Rousseau (Röhrs 1966: 210). By means of technology, man's power over nature has grown beyond measure, and mass-production, made possible by technology, makes available to man products whose origin and manner of production can scarcely be conceived in concrete terms by the individual. In such a situation it is necessary to activate the "can" pedagogically as against the "will", which would otherwise expand beyond measure. Only in this way does the "may", as an ethical aspect of "will" and "can", acquire its interior justification. For this, individual experience is necessary, to provide standards by which "can" can be measured against "ought".

An educational programme thus becomes discernible, in view of the inadequate position: "This education in individual experience is totally lacking in our educational system. It affords no practice in bearing hunger, thirst and pain, in mental concentration among distractions, in the mastering of emotions and affections, in resisting impulses without influencing the psychic equilibrium, although personal experience of realities of this kind is of great value, in that it brings the "will"-"can" relationship into equilibrium and affords greater security to those who master them. But above all, this personal experience is the precondition for the proper understanding of one's fellow-men, and such understanding has become so important because more than ever before in history the existence of each person is dependent on the motives and actions of other persons. Without personal experience there is no realistic, respectful valuation of one's neighbour" (Sachsse 1978: 225-226).

The aim is to overcome the "overweening presumption of the subject", which arises and grows through the application of technology, against nature and the subject's fellow-man. Without a continual referring-back to the "true needs" of man and his relation to nature as a part of nature, the fear will continue to grow that, as a result of the resources made available by technology, a naturally well-balanced understanding of the self will be lost. It is this very power over nature possessed by man and swollen beyond measure which demands. That, to counterbalance the technical "can", the question of the "may" should be raised. As a result there are not a few voices which regard the development of a new ethic, suited to the problem, as more important than further exploitation of technological possibilities (Sachsse 1972: 22; Lenk 1982: 198). Every further development of technological power can only become "technological progress" when it has been planned and organised after due consideration with a sense of ethical responsibility to man and nature.

Coupled with this is the establishment of a correct relationship with technology, which in turn implies that besides emphasis of the dangers, the actual creative power of technology should be opened up and evaluated. If this attitude is to be reinforced, then this act requires the joint action and joint responsibility of all - at least by a creative understanding. Technology is not the work in isolation of engineers, a caste which, with allegedly ice-cold rationality, is bent on transforming the world into a predictable machine. The ethical vigilance of the engineer and his responsibility for the world in which all men live has remained, along with the increasing snowballing of technological power, a central theme of debate. All available empirical findings (which could be broader and more up-to-date, in view of the importance of the subject) show, however, that engineers are the exponents neither of a mere ideology of

what is possible nor of a cult of pure specialisation (Kogon 1976: 360; Lenk 1982:151; 1984: 87). The humanistic coupling of technological design and invention is seen by a considerable proportion (84.5%) rather a an urgent necessity, so long as man and nature are to remain the obligatory points of reference.

It is all the more important that responsibility in the face of what is technologically possible should be continually made more aware of how this is to be reconciled with human rights and duties among those responsible for technological organisation - especially engineers. Apart from the fact that these thoughts would have to be discussed within the framework of the educational system so as to clarify the leading problems of technology, they should form part of the curriculum of engineering science in the broadest sense of the word.

A studium general of a traditional pattern cannot carry out these tasks, particularly since it is largely directed towards the consolidation of general education. A notable approach towards the solution of the question here mentioned is to be found in a programme which has been in course of development since 1979 at Harvard University. This Harvard Reform, realised in general education, is distinguished from the relatively abstract concept of general education in the direction of an ethic of faculties - so also with respect to the question "Technology and Ethics". The reference point is the "educated person", capable of forming judgments, who is able to integrate knowledge of his subject into the general context of humanity.

A further approach towards the penetration of technology by ethics is the "Engineer's Code", which until the 1970s was given by the "Verein deutscher Ingenieure" to every new member on his admission. The directive on conduct developed in it remains free of calculations of cost and utility and other utilitarian and pragmatic consideration such as are often regarded as decisive for technological planning. It runs as follows: "The engineer should place his professional work at the service of mankind;... the engineer should work with respect for the dignity of human life and in the fulfilment of his duty to his neighbour;... the engineer should not defer to those who disregard the rights of men and abuse technology;... he should be a faithful collaborator in human civilisation and culture..."

Within the "Verein deutscher Ingenieure" a working and research department was founded for "technology evaluation", as the result of similar considerations. The ethical harnessing of technology to the service of human life, its supratemporal values and aims, are also served by the Carmel declaration of moral responsibility with regard to technology. This was the closing act of the international symposium on "Ethics in the age of all-pervading technology", held in December 1974 at the Technion in Haifa and at the residence of the President of Israel, Professor Ephraim Katzir. In ten points, summarised here, the declaration states that "every technological enterprise must acknowledge the basic human rights and respect human dignity... Every new technological development must be judged according to whether it represents a contribution to the development of man as a truly free and creative being... Unconditional precedence should be given to the alleviation of human suffering, the eradication of hunger and sickness, the conquest of social injustice and the struggle for a lasting peace". An important freature would seem to be the reference to "supervisory disciplines" which are to examine technical innovations with reference to their moral effects, and the requirement that the creation of better forms of education is necessary.

In this way a perspective for technological planning and organisation is achieved,

one which is in a position to put humane technology at the service of mankind. In order to realise it, however, further scientific experience with ethical constructs, consciously conceived, is necessary. Planning and organization can be called ethical only if they seek carefully to weigh the effect of technological innovation on man, nature and the world we live in. Possible side-effects must also be taken into account in advance. In this area the educational approach has a fundamental importance, since it makes possible the discussion of these questions in schools and in public, with a view to forming opinions. It is young people who show a considerable understanding of technological questions, which they are able to discuss in concrete form with regard to the problems recognised.

By educational public work of this kind, two tasks can be attacked simultaneously: firstly, the enlightenment and motivation of the public, which is thus drawn sympathetically into the process of technological planning and organisation, so that secondly, proposals for possible solutions can be jointly considered. Independently of their negotiability, they are capable of bringing about the creation of a feeling for a common function, in a common responsibility. An important empirical safeguard with respect to humane solutions could come from these technological research institutes which attempt consciously to illuminate the reciprocal relationship between technology and ethics. As one example to stand for all. We may mention the research project of the world-famous Rensselaer Polytechnical Institute in New York, which attempts to test empirically, against man's understanding of himself, the effect of technological productions within a research project "Engineering Ethics". In view of the quest for perfection, characteristic of technology and directed in the first instance towards planning in engineering science, reflexion on ethical relevance is of fundamental importance. The dangers of a "technocracy" or even an "engineerocracy" (Veblen) are not excluded from any utopia; they are rather really present in the tendency towards technological development. This is seriously called in question only when the welfare of mankind and man's true needs are made the standard of comparison.

For this surely no ethic is necessary, but rather a thorough discussion of traditional ethical principles with regard to altered relationships within the industrial society. An experiment of this kind is undertaken by Hans Jonas in his book "Das Prinzip Verantwortung" (The principle of responsibility), with its qualifying subtitle "Essay on an ethic for the technological civilisation". Like Max Scheler, Hans Freyer and others before him, he begins his inquiry by differentiating it critically from the formal concept of duty of Kantian ethics. The categorical imperative formulated by Jonas is thus connected concretely with the abuses of the technological society: the continual ignoring of the "vulnerability of nature" by technological projections, which create a "new type of nature" and thus rob men of the natural fundamental of life. Consequently the first imperative is: "so act, that the effects of your actions are compatible with the continuation of human life on earth" (Jonas 1979: 36).

This ethic starts from the concrete problems of the technological civilisation and is directed towards a reformation through change of attitude: it is an "ethic of the future". The ethical concreteness consists in a standard of life, altered in principle, which consciously controls its own evolution in such a way that the integrity of mankind and the safeguarding of man's existence remained preserved in the future. This means a sharpening of the strength of imagination in the face of the "malum" experienced as an example of a "summum malum" conceivable in the future (Jonas 1979:

67). Herein is to be found one of the most important features of this "ethic of responsibility towards the future": while planning, to bear in mind man's right to existence in such a way that it remains guaranteed tomorrow. In addition: "The future of mankind is the first duty of collective activity by men in an age of technological civilisation which has become, *modo nagativo*, "all-powerful" (Jonas 1971: 245). This "duty towards men" is not to be understood in an anthropocentric sense, however; it includes nature, and does so consciously.

Since the future begins with child, this ethic of the future has a particular care for the child's development. To the extent that the basic postulate, viz., that tomorrow has its origins in today, is to undergo a conversion, pedagogical articulation of the key concept is unavoidable. Only from the "desirability of utopia" (Jonas 1979: 573) can the realisation of utopia be brought about: for each renewal of life - to the extent that it is to establish continuity - remains dependent on education.

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EDUCATIONAL REFORM IN THE SOVIET UNION AND ITS IMPACT ON VOCATIONAL GUIDANCE

by
Yu. G. Tatur

A drastic educational reform is under way at the universities of the Soviet Union, rendering substantial impact on the contents as well as methodologies of vocational guidance under the framework of formal education.

Objectives and the Background of the Reform

University education must keep pace with the on-going socio-economic development. Curricula and the teaching staff must be refurbished in order to supply graduates capable of playing a leading role in the society. With this view in mind, the Soviet Union deploys an extensive educational reform at the university level involvinig,

1) curricula,
2) teaching staff, particularly technical staff,
3) supporting materials and supplies, and
4) qualitative as well as quantitative supply schedule of experts in response to changing needs of the real world.

As for implementation, changes should be made gradually and steadily so as not to interfere with continual growth of the education system as a whole.

Under the reform philosophy, the one-way information emanation from the instructor to students is rejected. Instead, students are urged to take the initiative in digesting what the instructor offers. The curriculum and time schedule can be tailor-made to suit the competance level of each student through computor curriculum management. Furthermore, the reform calls for assimilation of university education to industrial production in the real world. The reform encourages partnership between academia and industry.

From the standpoint of vocational guidance, the reform necessitates the following five changes:

1) As of 1986, universities introduced vocational aptitude test into the entrance examination. Each applicant is evaluated for creativity, work performance and academic knowledge relating to his/her field of interest, in addition to the three compulsory subjects. Some 80,000 professors from 800 universities across the Soviet Union participated in the initial year trial. Student selection committees were formulated throughout the country to manage the laborious 20 day long selection trial including a 30 minute interview of each applicant. The result of this trial will be discussed later.
2) As of last year, vocational guidance course was clasified as compulsory to students majoring in pedagogy. In other words, an education faculty graduate should be

qualified not only as teacher but also as counselor. Furthermore, at certain universities, the psychology faculty would provide courses to foster specialists on vocational guidance.

3) In 1986, a vocational guidance course was added to the list of special courses in order to provide entrance examination applicants with pertinent information on the selection of disciplines they wish to major in.
4) Regional centers for academic studies on vocational guidance were set up. One of the objectives of these centers is the application of the Fukuyama profile in the vocational guidance at universities.
5) High schools and middle schools joined hands to organize a national contest on vocational skills. In this contest, called the vocational "Olympiad", winners of the regional contests participate in the contests of the Republics, and the winners of the Republics contests are entitled to participate in the national contest. Participation is on a voluntary basis. Universities also support the contest aggressively.

Coming back to the vocational guidance course, the course was founded in order to give pertinent information as to what is required of a vocational guidance expert. Participants of the course, particularly those who are desirous of entering into universities, are obliged to write a report on their knowledge of professions they wish to enter into. Professional knowledge is then reinforced by work experience as a part of the formal university education.

As a result, 90% of the students were admitted into faculties of their own choice. Most of those who were recommended to change their choice were female students desirous of entering into hazardous professions related to steel making and mining. Those ladies may have tried to push sexual equality a little too far. About 50% of the successful entrants into universities were awarded with meritorious trestment because of their vocational aptitude and capability. The number of students possessing medium level vocational experience increased 15% in 1986 compared with the year before.

EXPERIENCES OF THE GERMAN DEMOCRATIC REPUBLIC ON SPECIAL PROBLEMS OF VOCATIONAL ORIENTATION IN CONNECTION WITH THE DEMANDS OF THE SCIENTIFIC AND TECHNOLOGICAL PROGRESS TO LOOK AT BOTH NEW PROFESSIONS AND TRADITIONAL ONES

by
Anselm Siebel

In the German Democratic Republic the vocational orientation of the school students has reached a high standard. In the last few years 85 per cent of all school-leavers in any case could get an apprenticeship they wanted with their first application. That is the result of a purposeful, systematic and long-term process of training and education, which is directed to the aptitude of the young people to reach correspondence between individual interests and prerequisites with labour economic needs of the society when one chooses a vocation.

Under the conditions of the scientific and technological progress higher demands to the young free people's and conscious choice of career are made in connection with the further shaping of the advanced socialist society in the German Democratic Republic. Following reasons speak for that:

First: Microelectronics, up-to-date computer technique, computer aided design, projecting and steering the production, flexible automatic manufacturing systems, biotechnology, laser art and other key technologies make new professions arise and change the pattern of traditional professions.

Professions for supervising and maintaining up-to-date devices and plants as well as professions in the service centres get a greater importance.

The scientific and technological progress influences the structure of the professions and their nature. That's why the labour economic demands will be more dynamic and imperative for preparing the young people to choose a vocation.

Second: The further realization of the scientific and technological progress increases the role of the subjective factor. Such individual characteristic qualities as creativeness, initiative, sense of responsibility, reliability and availability are of high value. It is very important to take the qualities in their individual shaping into consideration as soon as the profession is being chosen.

The results of several scientific research works showing the connections between the free and conscious choice of vocation and the quality of work must be considered. Working people who made their choice of vocation prudently, sensibly and foreseeingly reveal more initiative and creativeness at work.

Third: The responsibility of the modern combines and plants for securing an extensively comprehensive reproduction process is growing by means of the scientific and technological progress. The concentration and combination of the work done in the plants have consequences in getting other young workers for the plants and for the availability of the working people with a prospect of new fields of employment including new decisions for professions and places of employment. Therefore the plants must plan their need of workmen for five years in advance.

Fourth: The humanist request of the socialist society for free and all-round personality development of the people to unfold all the valuable qualities of their individuality also influences the vocational orientation especially under the conditions of the scientific and technological progress.

Therefore the school students are helped when they are preparing for the choice of vocation to decide for such fields of employment where they can completely develop their subjective strength.

That is frequently connected with the promotion of aptitudes and talents.

In view of these connections the Socialist Unity Party of Germany has authorized all the educational forces of the society on its XIth congress in April 1986 to enable the young people to decide in an experienced manner for new fields of the scientific and technological progress as well as for traditional vocations. This orientation results from our experience that the preparation of the school students for carrying out the demands of the scientific and technological progress is a task which must be done by the training and educational work wholly.

Moreover a first-rate task is to use comprehensively the advantages of our ten-year general polytechnical school closely connected with the life and productive work in the plants. These are the further profiling of the con tents of the general education according the quick development in science, technology and production, the further development of optional teaching with its possibilities of differentiation, deepening and enlargement of the general education beyond compulsory teaching.

That promotes the masterly use of fundamental theories and scientific manners to think and work, the availability of basic knowledge, the shaping of abilities to learn and work in an independent and creative manner as well as the required shaping of specific inclination, interests, aptitudes and talents according the social demands including the vocational interests, all these being necessary for a successful professional activity.

Such a practice provides the experienced decision for traditional professions and new fields of the scientific and technological progress in close connection with the long-term information of the students which is done by the plants about their need of skilled workers, technical school, college and university graduates on the base of our sound system of vocational enlightenment and orientation.

As a logical consequence certain questions of the moral preparation of the young people to choose a vocation draw general attention. Our experiences show that the moral values appear in a double manner.

On the one hand the students get to know that the good work of an individual is recognized by the society; every work done in every other profession is appreciated. On the other hand on the base of these experiences the young people develop judgements as to value, being important for their individual valuation of the work and profession for example for the wish to contribute by high performances in their profession and to be quite happy about their job.

To act in accordance with the important changes of the character of work as well as in its contents and functions of work when the free and conscious choice of vocation is already being prepared the adoption of such judgements as to value i. e. the readiness of the school students to contribute by high performances in their profession to solve social tasks, to continue their learning, to take upon responsibility is necessary. The second-mentioned statement is significant for the further shaping, concerning the

contents of the whole system of vocational orientation in the German Democratic Republic under the conditions of the scientific and technological progress because the school students choosing a vocation take upon political, economic and individual responsibility.

ISSUES CURRENTLY VOCATIONAL GUIDANCE FACING

by
Shigekazu Fukuyama

At the close of the 4th Conference on Vocational Guidance, I was left deeply impressed by a realization of the growing importance of the role played by vocational guidance in rapidly changing societies characterized by highly developed technology and a growing aged population. Indeed, this was mentioned in my postscript of the final report.

The problems involved with rapidly advancing technology in the absence of a comparable and simultaneous increase in the ability to control such an advance, were recently highlighted in a newspaper report which told of the death of a man at the hands of an industrial robot which had been put into motion by electromagnetic waves. Such deaths while tragic, are also inevitable in light of soaring technology.

Whilst the development of computers has served to facilitate the exchange of information, it has simultaneously emphasised more the necessity for quick decision-making. This demand has brought in its wake added responsibility and thus increased stress. Added to this is the fact that peoples frustration with their work is today at an unprecedented high. People are largely dissatisfied with their jobs and consequently prove one more to greater stress and fatigue.

Put another way, the products of civilization are ceaselessly growing, and while responsible for significant advances in man's development, they must also assume responsibility for having created along with this new environment, new problems and a certain instability. In this age, I see the surging power of science and technology on the one hand, and vocation as a social stabilizer on the other. How then is it possible for individuals to retain a stable attitude towards their work? It is when his talents and skills are fully exploited and appreciated that the individual is able to derive satisfaction. Here in arises one role of vocational guidance.

Today, we are aware of the millions of people on the earth, subject to the sufferings of hunger and other such calamities. However, by and large, we live in relatively peaceful, stable societies. This being the case, we feel the necessity to somehow contribute to our society in one way or another. We desire to prove ourselves valuable to our society. It is true to say that more and more elderly people are wishing to give meaning to their lives, to their existence, by having jobs and offering something to their society. Joblessness and inactiveness hasten the onset of old age, and mental and physical weakness. Despite the fact that the majority of senior citizens have retained skills and talents that could benefit society, this in no way guarantees their getting jobs through which these skills may be manifested. Providing these individuals with more opportunities which will enable them to feel more valuable to society, leads to a solution to one of the important issues of the

ageing society. Here we not only find a close tie between man and his vocation, but also perceive vocational guidance as a co-ordinator of the two.

With these issues in mind, I would like at the workshop scheduled during this 5th Conference Session, to present the conference with the computer version of the Fukuyama Profile. The computer version of the Fukuyama Profile is a concrete method of vocational guidance which I have recently completed. I hope you will be able to appreciate and use it in the respective areas.

VOCATIONAL GUIDANCE AND THE AGING SOCIETY

by
Hajime Hiroi

1. Vocational Guidance in a Society of Lifelong Learning

Many proposals were presented in the general idea for education reform which was formulated by the Ad Hock Council on Education and which envisage education in the 21st century in Japan. Among them, needs for social provisions of and improvements in the "lifelong learning system" appears to have most relevance to aging society.

The challenge to provide learning opportunities to elderly people or adults has long been in existence and to a large extent, and both the private and public institutions have made much contributions through their "adult education" or "social education" programs. The Ad Hoc Council on Education proposes integration of the existing adult educations and social educations and widening the scope of such integrated system which would then be systematically tied to school education system so as to provide all people with the opportunity to receive the desired education literally throughout their lives.

Another purpose for establishing a lifelong learning system is to iron out and eventually eliminate the differences in academic background. This would serve as the first step in the efforts to eliminate the shortcoming inherent in a society which places importance on academic background. More specifically, it is an attempt to build a social system in which when people complete courses in adult education or social education or recurrent education or whatever it may be called, such educations are recognized as being comparable to school education in terms of quality, quantity, etc., such people would be granted the same qualification as those given to people completing an equivalent school education, and subsequently given due social treatment accordingly.

In a society where a lifelong learning system is well established, there would be no need to complete one's necessary learning all in the early part of his lifetime. There would be ample opportunity to receive the needed education at whatever appropriate time in one's adulthood or after joining the labor market. In this context, competitions for academic career and school entrance, which are considered as grave hindrance to youth development, would gradually lose its significance and better yet eventually fade out. Obviously, appropriate measures on vocational guidance would be required to achieve this aim. The following represent such measures from three perspectives.

(1) Vocational guidance at school level should be given with a long-term perspective looking into the future of the students. Both counselors and students would be required to contemplate on the future of the student

from a wide and long perspective and hence students would develop a strong commitment to voluntarily develop and enhance their potential while envisaging a prospective future. At the same time such education would probably inspire a career-oriented thinking from early years: A recognition that future educations should be linked to one's career.

(2) Vocational guidance at cooperation level, etc., would call for an increasing need to acknowledge that career development of an individual should be catered for between welfare of the individual concerned rather than for the interest of the organization for which he or she works. For example, an individual should not be confined to in-house career development programs. Instead, organizations should consider and make available opportunities for educations provided outside the organization, according to the desire and ability of the individual - such as career development programs provided by universities and other educational institutions and also those of other companies. There may even be hold initiatives such as an education institution established jointly by a group of companies for their employees. A whole spectrum of ambitious actions can be anticipated. Under such circumstances, there will probably be a rising demand for human resources capable of giving appropriate guidances and advises to enable people to understand which learning opportunity to choose based on their need for occupational faculty development, instead of availing such opportunities as they happen to come by. There will also be requests for establishment of organizations, facilities, etc. for providing such service. And eventually, these activities will no longer be confined to a given organization but will spread and penetrate into the society at large.

(3) People who do not go to any school or do not belong to a company, etc. should also be ensured the right to benefit from the lifelong learning system. Programs should be provided not only in the area of occupational faculty development but also for acquiring necessary knowledges and skills associated with leisure activities such as hobbies and sports. In particular, there should be ample opportunities provided by the society to acquire the traditional skills that are unique to Japan, as proposed by the Ad Hoc Council on Education. Another area that will gain greater importance is learning opportunities for the older people. With the advancement of the aging society, there must be a wide variety of learning activities geared to the elderly people so that they may enjoy a rich and fulfilled life in their retired life. As stated earlier, the above mentioned situation would call for socially effective activities to help people choose whatever learning activities that are most fit for them individual. And it goes without saying that vocational guidance serves as the core of such assistance activities.

2. Development of Ability of Job Selection of the Middle-aged and Older People

The rapid development of science and technology has created a situation under which more and more middle-aged and older people must accept job transfers within organizations. Some such people are not able to sufficiently adopt to their new jobs; some not yet sure of what they should do after retirement which is just around the corner; some hoping to find another job after retirement; and some retired

people feeling frustrated twiddling their thumbs and having to kill time. There is a growing awareness of the social importance to provide appropriate guidances and advises to these people. In particular, development of an elaborate vocational guidance addressed to the middle-aged and older people who need assistance is of vital importance.

However, vocational guidance geared to middle-aged and older people cannot be equated with that given at school. Obviously, the people in the former group are much older than school children or students and have much more experience in life, Hence, vocational guidance for the older people must be based on autonomous selection and decision of the individuals. Notwithstanding the above, it is questionable whether their ability to select appropriate occupation is developed to the extent that they are capable of guiding themselves. Thus, they must first acquire the basic ability for occupational selection before they make their own decision.

Programs for developing the ability of the older people to decide their own job must be tailored to the situation of each and individual people. How such programs are further developed in the course of time is another matter. But first, it is essential that the present level of the ability to make selection of the individual concerned is assessed, with which no appropriate program can be formulated. Such prior assessment also service as an invaluable tool to evaluate the efficancy of such program.

Fortunately, a tool to assess the ability to select job is already available. It is "Fukuyama Profile," a tool developed by Professor Shigekazu Fukuyama and has been utilized for forty years. While an adult version of "Fukuyama Profile" is available, a development of a special version specifically for the middle-aged and older people and for accomplishing the abovementioned purpose is urgently needed.

3. Conclusion

The social importance of vocational guidance will gain greater momentum with the aging of society, rapid technological development, more leisure, among other things. We are about to enter into an age in which vocational guidance and career education become necessary for all regardless of sex, age or with or without jobs. We must be prepared to meet the challenges of the age of vocational guidance in the 21st century.

CHANNELING THE ENERGIES OF AN AGING POPULATION INTO A PRODUCTIVE AND FULFILLING OLD AGE

by
H. Z. Hoxter

Retirement is often seen as a necessary evil. For the retired individual, the abrupt end of a lifetime of regular work and the prospect of decades ahead without the mental stimulus and discipline of a job is a prospect both they and their families find demoralising. The sense of identity and security associated with having a job are suddenly lost, and the initial novelty of unlimited free time soon sours, often resulting in feelings of isolation, rejection and boredom. For society, these retired people represent an important financial drain on the decreasing percentage of wage-earners whose taxes pay the cost of state pension. In addition, the Tax payers also finance the National Health Service which has to maintain the mental and physical health of retired people. Their health may deteriorate when the sense of purpose and usefulness in life has been allowed to wither away.

The retired population of Great Britain is constantly growing. 18% of the population were over the official retirement age in 1984, (compared with 13½% in 1951), and fewer of them are in employment than 30 years ago. Added to this, increasing numbers now retire early following the economic recession of the 1970s. Some, especially after retirement, may try to find other alternative employment, but for the majority, given the current economic climate, there is little prospect of success.

This situation implies a senseless waste of human and financial resources. Early retirement per se need not be negative - it indirectly helps to alleviate the problems of youth unemployment - but employers must become more aware of and sensitive to post-employment prospects, so that more people will opt for early retirement rather than reluctantly respond to persuasion or pressure from their firms. Retirement is at least as much an occupational phase or phenomenon as any other; it may increasingly lead not to total disengagement from the labour market, but to different, perhaps part-time roles within it.

As unemployment is likely to remain high, the opportunity for early retirement will be offered to increasing numbers of people and it is important that, in addition to an adequate pension, they should be able to look forward with confidence to a mentally rewarding occupation after they leave their previous employment. Early retirement should be looked on as a challenge and an opportunity to change course.

Unfortunately, this is a premise largely overlooked by central government, whose present policies can even be said to reinforce the view of non-workers' lack of social status, reflected in the subsistence levels of state welfare payments (old age pensions, unemployment benefit, social security payments etc.). Although there are no legal restrictions on earning after retirement age, old age pensioners are discouraged from earning over £75 per week by having the surplus deducted from their state pen-

sion for the first five years of their retirement. However, some job-placement schemes are financed at local government level, often in co-operation with voluntary and charity organisations. The counselling that does exist for older workers is found largely in the context of pre-retirement arrangements made by companies and in services provided by voluntary organisations specialising in the problems of older people. This inevitably means that the extent of guidance and counselling is limited to those whose employers are large enough, or sufficiently concerned to make provision for them, and it seems unlikely that more than a very small minority of workers receive any help. The most in need are those who work for themselves, the self-employed, those with small and medium-sized enterprises, and those whose later working years are disrupted by the effects of the recession and unemployment (i. e. involuntary early retirement).

Some organisations are actively engaged in work placement schemes for older people. The majority of these schemes are run by and for the voluntary sector, primarily charities, which rely heavily on a cheap or free labour force. Volunteers are also active in the fields of environment (conservation, recycling schemes), sport, culture, religion (including parish councils and the like), the arts, local politics and all non-profit-making concerns. These are all areas demanding the skills learnt during a working life and where there is often little spare cash to pay for their services, although some maintain that the fact of paying even a nominal wage, is important in helping volunteers to feel that their effort is recognised and valued, and thus contributes to their self-respect, which it is vital to maintain. There are numerous local employment agencies catering for the over-60's, some concentrating on one particular category of work, such as those placing former executives, former Service personnel, others with a broader spectrum. Their success rate depends largely on the unemployment situation in their own catchment area. Voluntary work is easier to come by than paid work, and lists of voluntary organisations are kept in local libraries and post offices.

One example has been set by a voluntary body called REACH (Retired Executives Action Clearing House) which seeks to match retired people from managerial, financial, academic and other professional backgrounds with charitable organisations which need their skills but cannot afford to pay for them. These older, more experienced people can be instrumental in forging links between industry and the community, and in particular the schools. Former managers are also offering their time and expertise to help set up small businesses, an enterprising venture benefitting both sides equally. The business reaps the benefits of professional advice which it could otherwise not afford, while the ex-manager enjoys the intellectual stimulus, the knowledge that he is still making a valuable contribution to society, and the sense of status associated with an occupation. Such work, paid or unpaid, can provide new responsibilities and experiences. Without it, there is the risk of existing rather than living, whereas the time could be one of opportunity, satisfaction and fulfilment.

Similar aims could be adopted by the government, perhaps using its already established Job Centres as a co-ordinating base for the benefit of semi-skilled and unskilled ex-workers. More emphasis is needed on the promotion of these schemes; at present, despite the admirable efforts of those already involved, they tend to be very haphazard and under-publicised. There is a need for central co-ordination and detailed investigation into the potential of these untapped resources, which should not be left up to the initiative of the voluntary sector alone.

Evidently, a whole new approach to the job market is required. There is not enough work to keep everybody employed full-time, and this is unlikely to change. Older people are often the first casualties, and those forced out of paid employment should not be unfairly penalised for their situation. Many more accessible opportunities must be developed for involving these people in community service work. Re-training schemes should be readily available to help people at all stages in their working life to adapt to the rapidly changing demands of the labour market, although there is a reluctance to invest in training for older workers, as there is a relatively short time for the investment to be recouped. Increasing numbers of employers are in fact accepting retirement planning as an obligation to their employees.

The concept of vocational guidance will expand beyond the limits of paid employment to include counselling on many other facets of life: the productive use of leisure time; resolving family conflicts arising from abrupt changes in the working status of a family member, which often puts an immense strain on personal relationships. The government's approach to the concept of work and remuneration, and its virtual dismissal of those citizens not in paid employment for whatever reason, amounts to an effective distinction between the "deserving" and the "parasites" which only serves to increase frustration and reduce motivation among large sections of the population, having a debilitating and counter-productive effect.

Some people look forward to retirement as a time when they will at last be free to pursue their education for its own sake. On a national level, there is the Open University, which provides degree and non-degree courses and study-packs for people of all ages. This is, true to its name, open to everybody who wishes to avail themselves of it; teaching is broadcast on television and radio, and students and staff communicate by post. At a local level there are Adult Education Institutes in virtually every neighbourhood, offering a comprehensive range of courses, both practical and academic, at all levels. The City University also provides degree courses but without a final examination or degree qualification.

Retirement should be more than a vacuum between an active life and death. Retirement can span as much as a third of a person's life, and should be looked upon as the beginning of a new phase of life, and an opportunity of continuing to make a contribution to the life of the community. Educational and vocational guidance counsellors can assist by increasing public awareness of these facts and helping people to reorientate themselves towards activities they may not have considered before or occupations which did not exist 30 or 40 years ago. It is, for many people, a matchless opportunity of doing what they really want to do.

EDUCATIONAL REFORMS TO COPE WITH THE SOCIETY OF LONGER LIFE SPAN

by
Hiroshi Kida

Many countries in the world are now moving towards inaugurating educational reforms. In Japan the Provisional Council on Educational Reform recently made its proposals in relation to general aspects of education, first in June 1985 and secondly in April 1986, with a view to allowing the country's educational system to cope with the social changes arising in the near future.

Although the Council is to continue its activities for years to come, I would like to state at this juncture that the Council's Second Report made in April 1986 contains two indications worthy of the most careful attention: firstly its emphasis on the necessity for reorganizing the educational system into a lifelong learning system, and secondly the importance of taking measures to respond to the upcoming information age.

The first issue with regard to the reorganization of the whole educational system into a lifelong learning system, is in large part a response to the many changes in the social environment. Technical innovation has rapidly advanced in many fields, including information technology. The elderly have come to occupy a much larger share of the total population of the country, inducing many changes in the employment situation and domestic living conditions. It is estimated that in the first quarter of the 21st country, while the population of children will decrease, the elderly of 65 years and upward will occupy more than 20 percent of the population. It is also estimated that the ratio of the dependent population to the working-age population will increase one and a half times from 43 percent to 65 percent in the next fifty years. In order to maintain, or raise, if possible, today's living standards until then with such a large dependent population, labor productivity must enevitably be increased one and a half times or more. Faced with such a rapid changes in the social environment, the concept of education must be reassessed and necessary reforms in the educational systems inaugurated.

The life pattern currently prevailing, where one gets a job after finishing school education and is then granted leisure time after retirement will no longer prove effective. While employed in a firm, one will have to devote his spare time to further education, and the amount of time for study will be increased by initiating a reduction in total working hours. Even someone of advanced age must continue engagement in some amount of work with the aid of education. Thus, in the society of increasing longevity, everyone will have to receive education throughout his life, beginning from childhood and continuing through his adolescence, adulthood and old age. It therefore becomes important that an appropriate educational system is designed to enable anyone to study whenever he wants. This is a major issue in regard to lifelong education.

The purpose and importance of education will enevitably change in line with the adoption of the lifelong education system. In early education, then, more consideration than ever should be given to the fostering abilities for self-learning and the ability to select a suitable job. Higher education institutions should be open to adults for whenever they want to study, so as to provide them not only with so-called general cultural education, but also with the abilities to cope with new types of occupations and professions. At the same time vocational guidance should be further strengthened to enable them to find jobs or continue in their present occupations.

With regard to the second problem pertaining to the educational reform, comping with the upcoming information age, an issue emphasized in the Council's Second Report, it may safely be said that the future advancement of information technology will bring about a great changes in all the aspects of social life including education, employment, etc. The computer will permeate many areas of daily life, and it will become necessary for everyone to be able to make use of this information apparatus. For that purpose, a program system which will make the computer more useful should be developed. The computer will not be able to demonstrate its full potential until the software is developed that can store the required amount of information. Such apparatus is after all a means which intended to serve that purpose. The more powerful the means, the more important it becomes to clearly understand the purpose, so that the means can work at optimum efficiency. In this sense it becomes increasingly important to reassess the innate purpose of education to cope with the upcoming information age.

I would like to conclude my short speech by stating that the most important task at this state is not only to consolidate the fundamentals of education to prepare for the rapid development of information technology, but also to make constant and widespread appeals to this effect.

THE ROLE VOCATIONAL GUIDANCE SHOULD PLAY IN CHANNELING THE ENERGIES OF AN AGING POPULATION INTO PRODUCTIVE AND FULFILLING OLD AGE

by
Emiko I. Kudo

I. Defining vocational guidance inclusively.
   A. "Professional advice given in schools, agencies, and other entities, on the basis of information gathered through tests and interviews, to help a person select activities to engage in for maximum personal satisfaction."
   B. The activities thus chosen may or may not be for economic gain; the value to the aged individual will be in terms of psychic income.
   C. While the objective of traditional vocational guidance is to help an individual choose an occupation for which he or she is most suited and then to plan and implement an educational program to pursue it, the energies of the aging may be similarly channeled to derive the most satisfaction from participating in selected activities.

II. Determining the concerns, needs and interests of the elderly through the use of various assessment tools and processes before developing action plans to fulfill the needs of the aging population.
   A. A survey among a representative group of the state's senior citizens was planned to be conducted in September 1986 to determine the areas of interest, concern and need of Hawaii's senior citizens. However, the results of a 1985 survey by the Honolulu Committee on Aging, Planning Task Force, were used by this panelist to identify needs and problems of the elderly and to validate information gathered from other sources of data.

      In the 1985 survey the instrument was sent to 105 key informants in the community—senior citizens, family caregivers, service workers, program administrators, and community leaders. Eighty four completed surveys were returned for an 80% return rate.

      The 1985 survey identified high medical costs, limited affordable housing, and limited in-home services as the most important problems. Other important problems included limited income supplement for low income elderly, limited or costly health promotion activities, and limited transportation.

      The respondents felt that groups needing special attention included those unable to care for personal needs, gap group elderly and elderly living alone. Low income, handicapped, elderly who need services within 24 hours and abused elderly are also high need groups.

      Rural areas seem to have more difficulty in accessing certain kinds of services, particularly those related to facilities. Services are limited or

the service requested does not exist.

The 1985 survey also elicited some suggestions to assist the elderly. Funding headed the list and included tax relief for care givers, volunteerism, support groups, self-help measures, care giver support, business involvement, education, addressing policies, information and referral, long term care insurance, employment, living will, maintenance of the bus pass, coordination and neighborhood crime prevention activities.

The results of the 1985 survey were utilized by the government agencies to help develop the 1987-1989 Area Plan, goals, objectives, priorities, and strategies to address the needs of the elderly.

This panelist did further study on the aspects of the survey identified needs of the aging population which might be assisted by emphasizing guidance activities and educational experiences Developing the needed skills and attitudes in the senior citizens to meet some of those needs would be the ultimate goal.

It was evident from the data gathered that vocational guidance did indeed have a definite role in channeling the energies of the aging population, to help themselves as well as to help others.

B. The F-Test was used for profiling basic information of a representative group of 70 senior individuals within the State of Hawaii during August, September and October of 1986. The instruments proved to be effective for (1) determining the degree of success experienced in the various activities, and (2) identifying the extent of the listed occupational proficiency and skills displayed in each of the individual respondent. The Fukuyama instruments were used with some modifications in that the age group differed greatly.

It was interesting to note the following in analyzing the profiles of the 70 respondents:

88% reflected strong tendencies of the occupational field in which they spent a major portion of their working life.

6% reflected tendencies of an occupational field quite remote from the actual occupation from which he or she retired.

6% reflected tendencies which did not translate into the occupations previously held nor were remote from them.

C. Program/Action plans will now need to be developed to channel the energies of the aging population. This must be done in partnership between government and the private sector.

Based on the findings of the 1985 survey and the profiles of the representative group of senior citizens that were developed with the use of the Fukuyama instruments, the need to establish programs for the aging population is very clear.

Services of all kinds will be needed but guidance and education must be emphasized to assist the aging population help themselves and others.

Ⅲ. Summarizing the current extent of the various programs and services available in

Hawaii for the aging population to be productive and to live a fulfilling life.

A. The potential resources of the aging population for the *home health care industry.*
   1. The population of the elderly continues to grow and life expectancy increases.
      a. One out of seven Americans currently needs some type of home care assistance.
      b. Health care will be coming back home as the average American lives longer.
   2. Home care is not only for the elderly; services are needed for people of all ages, ranging from newborn infants to senior citizens.
      a. In 1985 the home health care industry in the United States had revenues of $7.5 Billion; it will be $9.8 Billion in 1986.
      b. Home health care provides a cheaper alternative to hospitalization and institutionalization in nursing homes.
         (1) Home health care could be provided at a tenth of the expense of comparable care in a hospital.
         (2) The cost of treating a child who needs a respirator, for instance, would be about $250,000 a year in a hospital; the same care at home could be for $30,000 to $50,000 annually.
   3. Technology has afforded the growth of home health care by allowing treatment to be done in the home.
      a. Major machines have been miniaturized to allow a person using them to lead a normal life, living at home.
      b. Even some surgeries may soon be performed in homes, a pattern set in Europe.
      c. Doctors will travel in a van or cab equipped with needed equipment to go to patients in their homes.
      d. Hospitals will then become specialty high technology centers primarily used for complicated surgeries and diagnostic purposes.
         (1) Patients will leave hospitals sooner.
         (2) Patients will stay home for treatment.
   4. More doctors need to be involved in home health care for they must order home care treatment before it can be administered.
      a. The key to the growth of the movement is caring—people helping each other to survive; hence the role of the aging population to help themselves as well as others.
      b. Honolulu now has 17 agencies with certificates to provide home health care services; each island in Hawaii has a home health care agency.

B. The potential resources of the aging population for the *home child care industry.*
   1. Training for family day-care providers covers child growth and development, child guidance, nutrition, setting up your home, small

business management, music, puppets, toy and play ideas.

2. Tax workshop are offered to give information on how to maximize one's child care income.
3. First aid course on the care of young children, communicable diseases and emergencies, also included.

C. The potential resources of the aging population for the *community volunteer corps.*

1. Professional and personal services rendered as a volunteer in the field or area of competency will be satisfying to some.
2. A newly learned skill to use as a volunteer in the area of interest may be challenging to others.

D. The potential resources of the aging population with *saleable skills to sell or give.*

1. Home repair and maintenance require many skills not common to most people; teaching others to do for themselves or doing for others could be satisfying as well as profitable for those with the skills.
2. Personal accounting, tax reporting, stenographic services, and other similar skills could continue to be gainful experience for senior citizens with specific skills.

E. The potential resources of the aging population for the *recreation industry.*

1. Leisure time for the aging population grows in proportion to their age.
2. Assuming good physical health and economic independence, the recreation industry has much to offer the aging—to give and to take.
3. Physical fitness is also promoted by recreation.
4. The cost of recreation could be nil to costly, but careful planning will help all seniors to fulfill their goal.

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VOCATIONAL GUIDANCE: SERVING THE AGING POPULATION

by
S. P. Marland, Jr.

The science of demography, the study of changing traits and trends in segments of the population, reveals illuminating information on the older American over the next several years. As noted in a separate paper submitted to the conference, the "baby boom" new-borns of the 1940's and 1950's in the U. S. are now in their middle years at age 30 and 40 or more. The decline in the college-going age group, numbering over five million fewer people in the cohort until about the year 2000 has prompted colleges and universities to take extraordinary steps to attract the adult learner. For demographic purposes the adult learner is anyone engaged in some form of education after reaching age twenty-five. The learners now include many individuals over sixty-five. Starting in 1983 there were more people over sixty-five in the U. S. than there were teenagers. Demographers predict that the effect of the baby boom (like a tennis ball passing through the belly of a snake) will continue this phenomenon for many years.

> One element of concern deriving from these data is the effect on retirement income of the aging. In 1950 there were 17 active workers contributing benefits to one retired person. By 1992 the ratio will be three to one. In 2010 when baby boom individuals will retire in large numbers the ratio will be two to one.

This phenomenon raises enormous questions about the future of our federally operated Social Security system. It also emphasizes the relevance of this paper, i. e., *serving the aging population in providing a productive and fulfilling old age.* They may *need* to learn and work to sustain their income.

There is no doubt that life-long learning is now an accepted and normal pattern in the United States. A recent survey by The College Board reveals that half of all Americans twenty-five years and older (over 60 million individuals) learned one or more topics during the past year. The criteria for "learning" in this survey were very broad: "formal or informal ; something you are teaching yourself, such as gardening or religion; private lessons in music; a training program in your company; or (of course) enrollment in a college or university. "

In the same survey, when asked why they were engaged in learning, 56 per cent of the respondents declared their reason to be career-related, such as preparing for larger responsibilities and promotion or adapting to a new enterprise or process. Thus, there seems to be no lack of opportunities for adults to engage in formal or informal learning activities.

It will be useful, as we think about providing vocational counseling to these adult learners - especially the elderly - to examine *where* their learning is taking place. As noted earlier, colleges and universities are a principal provider and will probably

increase their market share as time passes. But many more adults are finding their learning opportunities outside the formal, credit-earning system. Harold Hodgkinson, Senior Fellow at the Institute for Educational Leadership in Washington, D. C., has recently written

> "A strong growth market in higher education during the next decade will be the adult learner – probably a worker, probably a head of household, and probably a woman or minority (person) ... competition for these adult students is already fierce. While higher education has about 12 million students, research (indicates) that some 46 million adults are engaged in systematic learning in business and industry, government agencies, and voluntary associations."

The American Society for Training and Development reports that businesses in America now operate about 10 million courses taken by about 18 million workers, two-thirds of which are conducted in-house by the company's own educators. Apart from business the military services educate between 2 and 3 million students in courses of their choice, including degree-granting offerings.

While the foregoing observations deal with the adult learner altogether (age twenty-five and older), they clearly include those sixty-five and older. While no data are readily available as to the number of aging people among the abult learners, it is known from general observation that the elders are well-represented. (A recent recipient of the bachelor's degree from the University of Connecticut was 85 years old.)

As to how vocational guidance serves this population, there is little doubt that such counseling is less readily available than it might be. The elderly deserve our professional attention as they seek "productive and fulfilling" lives. But there are reassuring signs that the topic is receiving attention. There are approximately 25,000 information and counseling centers in colleges and universities, libraries, YMCA's and YWCA's, and private agencies. Business enterprises, noted above, give strong guidance and support services to employees engaged in learning under their auspices. The College Board takes note of the need for increased services in the report of its survey noted above:

> "As lifelong learning becomes more prevalent, federal and state governments will become increasingly concerned about the supporting role they can play. The support should include financial as well as technical (guidance) assistance with institutional programming, provision of information services, and coordination of public resources."

As for serving the needs of the aging as they *seek productive and fulfilling old age*, the opportunities are clearly there, indeed agressively advanced. If there is a flaw in the delivery of services, it is a lack of communication between institutions and the newly identified adult and elderly prospects for enrollment.

THE ROLE VOCATIONAL GUIDANCE SHOULD PLAY IN CHANNELING THE ENERGIES OF AN AGING POPULATION INTO PRODUCTIVE AND FULFILLING OLD AGE

by

Hermann Röhrs

The frequent talk of old people - or rather of senior citizens - definitely has its roots in reality. In 1886, for example, a mere 5% of the population was over 60 years of age. At present, that figure is 20% in the Federal Republic of Germany. In the year 2000, it will have risen to 25% and worldwide there will by twice as many people over the age of 80 as there were in 1970 (Lehr 1986, 16). The primary reasons can be found in the lower birth rates and the longer life expectancies.

In view of this development, the very important demographic and educational question arises as to what kind of social position this large segment of the population will have. Of course, one will hardly be able speak of a single homogeneous group of old people. By the same token that the process of aging is crucially determined by the socio-cultural structure of a person's living environment and by his or her life experiences, it is also true that the representatives of this group differ greatly with respect to their outward images and their capabilities. Therefore it is necessary to make a clear distinction between the actual calendar age and the social and job-related functional age as it is called in the English-language literature (Stagner 1985, 801).

So who are the elderly? In any case they comprise a highly complex group. Of course, their individual vitality and creative power is a far better indicator of who they are than their actual date of birth; however, this makes it difficult to draw up a classification. For example, there are 70 or 80 year-olds who are still involved in the creative process - propelled by ideas and by a level of activity that allows thoughts on aging to surface only at quiet moments. On the other hand, there are representatives of this age group who have left the world of work because of illness or loss of working power and who live the existence of a pensioner at quite a reduced level of energy.

Even if we are aware of these differences, it is nevertheless necessary to distinguish between the phase of middle age (40-60) and advanced age (60-90). Any other differentiations such as classifying those over 55 as the young old, those over 65 as the middle old, those over 75 as the old old and those over 80 as the ancient are mere makeshift labels as long as no further description is given. The biography of just one single old person who has remained young at heart and creative disproves this classification. Of course, not everyone has the natural disposition of Goethe, Picasso or Chagall, who created their late works after the age of 75. It makes a crucial difference whether one spends one's life as a steel worker in Pittsburgh, as a farm worker in the Urals, as a skilled worker in electronic mass production in Osaka or whether one finds one's niche as a brilliant individual in meditative and creative solitude. In all of these cases, one's personality structure and one's educational status are of utmost importance in a truly existential sense since these factors determine

whether it is possible to reflectively view the various experiences from a distance so that they do not become merely a destructive burden but rather a building block for the emerging personality.

The range of outward images of the elderly allows for quite contradictory opinions; at one end of the spectrum we find the disengagement theory, which designates the elderly as a group that is less productive and less communicative as well as being prone to illness and less and less able to learn new things, meaning that they are compelled to withdraw step by step from the creative and decision-making processes. The interpretation of aging as a growing internal need for "social isolation" has received substantive support from the Kansas City study, which was carried out in 1955 under the auspices of the Department of Human Development at the University of Chicago (Cumming, Henry 1961). A key finding of this study states that withdrawal from social bonds is a major component of aging and that this is reinforced by social tendencies in the family and in public. Its goal is internal concentration focused on a critical summing up of life's experiences in the face of the new existential reference point which is death. According to this interpretation, it is as though a process of desocialization were taking place (Woll-Schuhmacher 1980).

In contrast to this we find the activity theory, which sees activities appropriate for certain capability levels as a characteristic trait of aging. These activities have a two-fold function: first of all, participating in social life and experiencing the motivational forces of that particular life; secondly, constantly perceiving with certainty that one has a function that defines both one's position as well as one's significance as a whole. Self-reflection and the search for meaning can very well be a component of these activities, if these thought processes find their own rhythm; hence these activities by no means call for disengagement.

In critically examining these positions, there is a genuine risk of setting up stereotypes and thus misinterpreting a wide segment of the population - one which we will all potentially belong to sooner or later - with respect to its life circumstances. The risk lies in the increasing alienation of the generations, which can lead to a confrontational subculture on the part of the elderly; this trend has a fairly resigned and, in any case, alienating air about it.

The result is that there are tendencies to remove the elderly from the working process altogether by means of early retirement - a measure that is socially and politically justified by the disengagement theory on the one hand and by the high unemployment rates among young people on the other hand. The questionable one-sidedness of this measure lies in the fact that it is primarily an expression of the deficit theory of aging which assumes a reciprocal diminishing of people's qualification structure and of their social responsibility.

In the light of findings in gerontology and in the emerging field of gerontagogics (educational gerontology), this dominance of market and employment-oriented considerations must be questioned. The form of self-determination granted to groups of young people, adults and women must also be extended to the old population. Stated in more concrete terms and taking self-determination into consideration, this means a more flexible arrangement for withdrawing from the work process. This step should not be laid down once and for all by law as an allegedly beneficial compulsory measure but rather it calls for a transitional situation which leaves leeway for individual decisions (based on profound self-examination and guidance).

The most effective form of guidance is the kind that occurs within the scope of a lifetime of adult education. However, this should not mean a premature fixation upon aging, which could paralyze a person's initiative and imagination. On the contrary: growing old and being old, both which are repressed as an isolated borderline phenomenon in our society that adulates youth, could once again become important facets of our lives if we were to consciously deal with aging.

Within the scope of a transition that has yet to be delineated, one's job has a key function. In conjunction with advancing age, the question whether preference is given to retirement as an early or partial measure, to job sharing or to continuing work should not be decided upon independently of the opinion of the person involved (with the help of guidance services). A trailblazing milestone towards making a free decision to secure this transition plateau was set in the U. S. A. in 1979 under President Carter with the passage of the Age Discrimination Employment Act (ADEA) prohibiting employers from excluding persons under the age of 70 from the work process without their consent. Job and life satisfaction are important criteria for making this decision. In view of the significance of this decision, the question as to whether - along with counselling analogous to the Fukuyama Occupational Readiness Test - a test to cast light on this transitional situation (based on job experience so far and life expectations) should be developed must be answered in the affirmative.

The transition must be sufficiently early and flexible. For example, the phenomenon of the mid-career change during middle age (40-50 years old) should definitely be included in these considerations. Perhaps it is a question of getting out of a nerve-wracking managerial or technological profession and into a simpler type of activity, or else a person might leave a skilled profession and (by completing specialized studies in the interim) move on to a creative career - in any case, these changes must be well thought out and prepared for in order to assure job satisfaction for the second half of life. Only in this manner can the professional foundation for the decisions made during the last phase (50-70 years old) be firmly established.

In this transitional situation, a critical point in the anthropological sense is defined by the education of the individual as well as by his or her sociopolitical and sociocultural status. That must be an important motivation to provide life-long education in the form of a wide range of options - be it at work, in adult education or at an academy for the elderly. In this situation, the manifold problems of aging in the post-industrial society should also be a focal topic deserving special attention.

Ever since the days of ancient philosophy, old age has also been associated with the apotheosis of the wise who, on the basis of their life experiences, are able to give advice to those younger. Accordingly, the real task of old age is to adopt a reflective, contemplative attitude and to devote oneself to answering life's questions in order to pass down these answers in an enlightened form as a legacy for the further development of society. Therefore it is the constant task of the elderly, freed from the drudgery of daily work, to devote themselves entirely to the ultimate question so as to combine their own salvation with that of the society in which they live.

This attitude can be encountered among all of the peoples who live in harmony with nature and who consequently honor the elderly and grant them a special role. In the context of these historical and ethnological facts, one must note from the anthropological point of view that self-fulfillment based on life experience is an all-encompassing goal of old age. Hence, there should be no conflict with the wish to continue

to perform one's job as long as this work seems appropriate to the person's age. The *vita contemplativa* is a specific life attitude for which retirement is by no means a prerequisite, even in old age. As a form of insight that goes with this *vita contemplativa*, worldly wisdom is a form of activity that (always assuming economic security) is not primarily motivated by economic considerations but rather is an activity performed as a selfless service to society.

In view of the increase in the percentage of the elderly in the world population, it is of fundamental importance that we avoid polarizing the relationship between the old and the young. Rather, as the basis of understanding is strengthened, the cooperation must be intensified. Consequently, in order to achieve a liberalization that everyone can accept, it will be necessary to define the transition plateau in such a manner that it can be crossed in both directions. In concrete terms this means that the issue is not only to protect the rights of the elderly and to provide them with appropriate social and welfare security, but rather it is also a matter of sustaining the overall awareness of social responsibility within this group. The goal is to create a broad basis of cooperation between the old and the young. Allow me to present two examples.

The first example is intended to show that there are many ways to pay attention to the elderly; they are of significance for both parties, but they are all the more effective the earlier and the less conventionally they are bestowed. On the basis of these considerations, at the International Comprehensive School of which I was a co-founder in Heidelberg, I decided to sponsor a peace course on the topic "The Elderly" as a peace educational topic (peace as a problem of intrapersonal processes). Behind this selection was the fact that there is an old folks' home across the street from the school and - in conjunction with a group of interested persons - a sponsorship program was to be established between the two.

Through the hypothesis of the "disengagement process of aging", which was developed by the pupils analogously to the gerontological discussion (though without their explicitly knowing this theory), the project "Meeting the Elderly" was provided with its subject matter. In order to find out the basic ideas the pupils had about old people, the first step was a brainstorming session: "What do you know about old people?" The attitudes of the pupils confirmed the thesis of the alienation between the young and the old. "They die out", "they shrink", "they are sick", "they are lonely, alone, sad, nervous", "they have inhibitions", "they are no longer respected", "they feel excluded", "they are put in old folks' homes". These statements gave the impression of being a description of an unknown ethnological group rather than of the generation of their own grandparents.

After these statements had been evaluated, the actual encounter took place in the school in small groups in a well-prepared and relaxed atmosphere. The conversations showed that the understanding for the life situation of the elderly was deepened; the wish was expressed to continue meeting and this is still going on. The analysis of the meeting confirmed two important assumptions: 1. In our society, in which the one-generation family is dominant, the elderly have become a group that is hard to understand because the primary relationships have virtually disappeared. 2. The many current prejudices can only be eliminated by strengthening the basis of cooperation; however, this will call for extensive preparations (Röhrs 1983, 208).

This project illustrates an important model of encounter and cooperation

between young and old that could be adopted by other schools as well. Reading and discussion groups dealing with various topics, small-scale assistance projects can provide a stimulus for both groups and enhance mutual understanding.

The second example is intended to illustrate the (often implemented) opportunities that old people have to reduce and assuage hardship in our society – even among other elderly persons who are in need of help. Full or partial retirement from the work process should (presupposing social security in old age) also be seen as a chance for voluntary participation within the realm of social work. This activity does not have to be limited to auxiliary functions in one's own family but rather can very well involve public work in voluntary care-giving, guidance, help and probation assistance. In particular from an anthropological point of view, it seems important– both for the sake of one's own self-actualization as well as for bridging the undeniable gap between young and old – for the group of the older generation that no longer holds jobs to become active in assisting and counselling those around them in their social milieu, as long as the elderly person really wants to take on such a function and as long as his or her own condition allows for such activity.

Many of the social clubs for the elderly, academies and welfare organizations in our society work exclusively on a volunteer basis; they survive on the hope that they can constantly recruit more new volunteers by setting a good example. In this manner it is possible for the life experience and wisdom of the elderly to serve life in society so that the critically examined experience of the older generation can be utilized to solve tomorrow's problems. This many-faceted interlinking of the generations in the sense of providing a social model for the post-industrial society can also increase the life fulfillment for a growing group as a result of social sensitization.

An important goal of educational gerontology is to create the prerequisites in which people will like to and will be allowed to grow old. This means no more and more less than that old age should find its goal (*telos*) in itself. Nevertheless it is certainly an advantage when old people are youthful and have even maintained youthful capabilities. However, it must be considered questionable if youthfulness has to be taken as the absolute standard for one's own conception of self and if a borrowed youthful image is chosen in hopes of acquiring legitimacy. Every age group has its laws that should be recognized and observed; old age is no exception. Anyone who constantly fails to do so will miss the sense of aging.

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VOCATIONAL GUIDANCE
BEACON FOR THE FULFILLMENT OF OLD AGE

by
Marvin Weingart

I. Demographic Patterns

A. An Aging U. S. Population

The phrase "The Greying of America" is now a basic part of the American vocabulary whenever demographic trends are discussed. Just a few statistics will make abundantly clear the population changes taking place in our country.

The United States takes a census every decade, the last one in 1980. However, I will be using some Bureau of Census estimates which are more recent.

To understand the dramatic change taking place in our society a fast backward glance is necessary. A child born in the United States in 1900 could expect an average life span of 47 years. A child born today can expect an average life span of 74 years. At the beginning of this century persons aged 60 or over represented one out of every 16 persons. Today they represent one out of six. By the year 2030 they will represent over one fourth of our population.

Furthermore, while the size of the population 60 and over has increased by over seven times, the population 75 and over has grown eleven times and there has been an eighteen fold increase for those 85 and older. Such drastic changes not only affect our labor force but they also point to the necessity for a new assessment of the needs of this population.

B. Labor Force Implications

Virtually every national survey indicates older workers want to continue in some type of part time work after retirement. Part time schedules when offered to older workers have been eagerly accepted. However, in most firms an older worker faces a dilemma: continue to work full time or retire permanently. Furthermore, other factors such as health problems and illegal age discrimination serve to further limit employment opportunities.

Early retirement programs have also been a significant factor in both pressuring the older worker to leave his occupation and luring him by incentives. When a large organization is faced with the need to cut labor costs or a non-profit, governmental institution must retrench, older employees are offered financial incentives to retire. For example, just a few weeks ago the following item appeared in our papers:

The Alaska State Legislature has offered to pay as much as a year's

salary into the state retirement system for state employees who choose to retire up to three years early.

The legislators made the offer in hopes that early retirements would save the state from having to lay off workers in the face of across-the-board state spending cuts necessitated by dropping oil prices.

Although labor market predictions point to a modest increase in our employment over the next 20 years, the number of non-working elderly will increase from 23 million today to 30 million in the year 2000 and may even reach 49 million in 2030.

II. Needs of an Older Population

A. Work Needs

Work provides two significant returns for the elderly. The first is economic and the second deals with an individual's quality of life.

Generally, the elderly face a reduced standard of living upon retirement, despite more liberal pensions and increases in social security. Inflation adds to the toll. Thus, part time work with its additional income helps lead to a more comfortable life.

However, work of some type also affords life satisfactions. One researcher, Ginzberg, characterized these as status, personal achievement, social relations and structure of time.

Satus has always been attached to one's work.

A person identifies himself or herself as a teacher, an accountant, a nurse, a truck driver. By working in retirement such status is retained. It also provides a source of personal achievement; a person *is* what he or she does. In addition, the social relationships which are part of the workplace in the office, in the stockroom, on the assembly line, remain only so long as the person continues as part of that office, stockroom or assembly line. Furthermore, the quality of life is enhanced by having time structured. A person has a definite time to arise, to leave the house, to arrive at a workplace. Thus, work not only fulfills an economic need but it is also a quality of life item.

B. Transitional Support Needs

As the roles of the elderly change, their support needs come into clearer focus. Late life career changes, movement from the workforce into an educational mode or into community service require support mechanisms. Vocational guidance must broaden its scope to include such movements of our aging population.

A late life career change may be involuntary, brought about by lay-off, changes in health or by a mandatory retirement policy. Or, it may be voluntary, the result of inadequate job satisfaction, inappropriate selection of the initial career or changes in the environment. For example, the U. S. Department of Health and Human Services notes that the large number of middle aged women returning to the workforce reflect such a change in the environment. Whatever the reason for the change, the need for sensitive, concerned vocational guidance counseling was never more clear.

Moreover, if the transition is from the workplace to full retirement, life skills,

coping skills are needed. A life skills approach enables an individual to acquire the psychological understanding needed to cope with change. Coping skills are those behaviors which help a person prevent, alleviate or respond to stressful situations. If utilized before the event, they minimize the impact. If used after the event, they may modify the situation or help manage the stress. Vocational guidance can help inculcate the coping skills which will serve as transitional support needs.

III. Role of Vocational Guidance

Vocational guidance in the United States is highly dynamic; it is the product of shifting influences and human resource needs. It responds to and is affected by economics, technological changes, legislative mandates, the influence of unions and the labor force demographics referred to earlier.

At times career guidance and vocational guidance have been used interchangeably. There is a difference, however, and it becomes clear when vocational guidance is applied to our aging population. Generally, the elderly worker or the retiree is not seeking a new, full-fledged career but rather a mode of activity which will make his or her older years productive and satisfying. Vocational guidance covers a spectrum of activities which may include part time employment, intergenerational activities, community service, and lifelong education, among others. Vocational assessment tools do not only identify work options but they also serve to direct the elderly to social support systems and to lifetime planning which will serve as a continuation of meaningful activities.

In 1982 at the Third International Conference on Vocational Guidance, Dr. Fukuyama stated that a new Form A of the F-Test was being developed that could be used with adults. Certainly the basic concept is as applicable to the elderly as it is to the junior high school student. One of the greatest values of the Fukuyama Profile lies in the introspection it engenders in the user. The Fukuyama Profile can enable our elderly to reassess themselves, to seek new directions and to enter new, rejuvenating areas of human experience. Many of our large corporations which conduct retirement seminars and which attempt to ease the transition from the world of work to retirement will certainly find the Fukuyama Profile to be a useful tool which adds a new dimension to vocational guidance for the aged. I trust we will have the opportunity to use the Fukuyama Profile as an aid to the aged in the New York area.

PROCEEDING

(NOV. 2)

Opening Ceremony

M. C.

Now we begin the 5th international vocational guidance conference. We want to ask the Chairman to make the address of welcome.

Chairman

Address of welcome (refer to pp. 18—19)

Chairman

We will ask Dr. Christ-Janer to deliver the speech in honor of the late Dr. Shiro Amioka.

Memorial Speech

Arland F. Christ-Janer

Dr. Shiro Amioka, was a teacher, dedicated to all who would learn and think, scholar, committed to expanding his understanding so that he might be a better educator friend to all. Colleagues admired and respected him, and he was respecting of others. A family man, loving. He continues his presence to all who were touched by him. Our responsibility is to continue to carry on in those matters for which he stood and about which he taught us.

Somewhere in a place called heaven, he has gathered together a group of people to teach them about John Dewey. And he doesn't even mind that John Dewey is in the audience. Shiro Amioka cared about life and about others. He dedicated his life in trying to make a difference. He did, and we miss him.

M. C.

We will ask to present the messages.

Messages (refer to pp. 8—17)

M. C.

We now close the opening ceremony, and begin the Sessions. First, the schedule of the conference will be explained by the co-chairman.

SESSION I

Co-Chairman

Now we will ask the Chairman, Dr. Fukuyama, for the keynote address.

Keynote Address

Dr. Fukuyama

Several countries are attempting to reform their educational systems, and some countries have already reformed their systems. Viewed from this situation, I think that greater emphasis should be given to vocational guidance. Conventional education has lapsed into a training-centered, cramming-centered practice. This is a serious mistake. What we are attempting to accomplish through our international conference on vocational guidance is to find a solution to correct this mistake.

In initiating the international conference on vocational guidance at Ashiya University I consulted with Dr. Marland, the 19th U. S. Commissioner of Education, sitting next to me, and Dr. Yelyutin, the Minister of Higher and Secondary Specialized Education of USSR. Dr. Kida, who was then Vice-Minister of Education of Japan, also cooperated with us in convening the conference. I also wish to reiterate that we all appreciate the contribution to the conference offered by Dr. Amioka, in whose memory Dr. Christ-Janer delivered an address.

Taking all these matters into account, I want to re-emphasize the significance of vocational guidance in education reform. At the fourth conference, we reaffirmed the meaning and the nature of vocational guidance in an age of high technology and aging populations. As I stated in my address of welcome, an concept of vocational guidance will be the guiding principle of the twenty first century as the concept of "Humanity" has been the guiding principle for the modern age.

The Reform of Educational System and Current Issues of Vocational Guidance

Co-Chairman

We should like to start our presentations. First speaker is Dr. Marland. You would like to take the floor?

Dr. S. P. Marland, Jr.

Presentation (refer to pp. 22—23)

Ms. Evangeline K. Barney

Presentation (refer to pp. 24—28)

Dr. J. B. Dupont

Presentation (refer to pp. 29—38)

Mr. H. Z. Hoxter

Presentation (refer to pp. 39—41)

Dr. Kenneth B. Hoyt

Presentation (refer to pp. 42—49)

Ms. Emiko I. Kudo

Presentation (refer to pp. 50—53)

Ms. Dorothea Z. Kuritzkes

Presentation (refer to pp. 54—57)

Dr. Jean Pellerano

Presentation (refer to pp. 58—59)

Ms. M. Rangel

Presentation (refer to pp. 60—62)

Dr. Karl G. Zenke

Presentation (refer to pp. 63—67)

Dr. Hermann Röhrs

Presentation (refer to pp. 68—73)

Co-Chairman

On this occasion, I'd like to ask Mr. Hoxter to take the floor.

Mr. Hoxter

Mr. Chairman, colleagues. This morning we have had a most interesting, challenging panorama of developments in education and vocational guidance in Japan, the United States, the United Kingdom, France, Switzerland, and Germany. And these 12 presentations have shown developments at considerable variance in different parts of the world; and they are stimulating to our thoughts, and to our attitudes to this whole field.

I'm merely speaking here at this moment as president of the International Round Table for the Advancement of Counseling, and I'd like to express our gratitude to President Fukuyama for his initiative in again sponsoring this international conference.

I believe that international conferences in this field are of the utmost importance since they call the attention of governments and pro-

fessionals all over the world to this field of interest with which we are all concerned—and as such is a most valuable and most welcome initiative.

And so far as we are concerned internationally and with the particular emphasis on counseling, it is quite interesting to remember that when we started the international movement in this field we had approximately 80 members in about 15 countries. Now, the international movement in counseling has 5,000 members in 98 countries; and we have now been able to develop 20 major international conferences in this field.

Without this initiative, many of our colleagues in many parts of the world might not be able to be in the same position of advancement and of development of their professional skills as they are today.

I think the particular task of international conferences is to bring together the researchers to help them to find out how the practitioners out in the field view the results of their research—to bring together the field workers to give them the opportunity to learn from those who educate and train their own colleague professionals the world over. And finally, the government and international organizations, without whose support and resources this field would surely be reduced. In that way, international conferences play a most important part in developments in this field.

I would like to repeat our appreciation to President Fukuyama for having developed this initiative, and for having reviewed and consolidated our development over the past ten years. Thank you.

Co-Chairman

Thank you very much.

Do you have any other observations?

I think Dr. Marland's observation is very meaningful, and I'd like to see to it that the full text is produced.

So, maybe in response to Dr. Marland's observations, I'd like to ask Dr. Röhrs if you want to add anything to your presentation. Maybe you could do so because we still have some time.

Do you have anything to add to your presentation on this occasion? We still have some time.

Dr. Röhrs

To add, I believe it is the structure of my presentation.

Co-Chairman

Okay, fine.

Do you have any other observations?

Dr. Christ-Janer?

Dr. Christ-Janer

Yes, I was taken with the report of Ms. Barney in connection with the partnership of the secondary school system and the business world in Hawaii.

Certainly that was encouraging, but I was also remembering that recently a study was done in the United States at the higher education level on the mainland. It was kind of interesting that the representatives of business and industry listed those characteristics that they most wanted to see coming out of higher education—the qualifications of the students graduating from college. And then they had a group of educators saying what they thought they were educating them for. And there was a big divergence.

Business and industry wanted quite different things from the college graduate than what the educators were saying that they were feeling were their goals.

So, you had success where, in higher education, we haven't quite bridged the connection between higher education and business and industry.

Perhaps, Dr. Hoyt, you've had some experience with that, too.

Dr. Hoyt

Higher education has resisted more than the elementary and secondary school system in the United States.

This morning, the TV station that I watched announced the release of the latest Carnegie Report on education in the United States. It is a report that calls for extensive reform in higher education, including the formation of partnerships, just as we have done in the elementary and secondary schools.

That report was released only yesterday, and I think it is most significant.

Dr. Christ-Janer

I think I saw that on television also, and I thought when Dr. Marland was making his point, that in higher education, because of the need to recruit students who are basically more career-oriented, perhaps we'll stand a better chance of getting business and education together.

Co-Chairman

Dr. Hoyt.

Dr. Hoyt

It was simply announced as a new report of the Carnegie Corporation.

This would be the Carnegie Corporation, not the federal government. It would come out, probably, from the Carnegie Foundation for Education and Economic Development. That is the group that has been most active in educational reform recently, and one of the groups that has so far ignored vocational guidance per se, which is one of the things I think we need to be very clear of in terms of the goals of this conference. It's very significant, the way they have ignored vocational guidance because they're about trying to improve all of the places where choices can be made.

Ms. Kuritzkes

I would like to refer to the point Dr Christ-Janer made, that in New York City the business-education partnerships have also been developed to a considerable degree.

As a matter of fact, at the moment, 51 of our 100 high schools have joined with different companies or corporations trying to develop programs of education preparing students for the world of work.

Dr. Christ-Janer

Yes, I guess, it's at the secondary level it has really been quite effective and perhaps even at the vocational colleges—vocational schools—we have.

But my point was that in traditional higher education, we just haven't made that connection yet.

Mr. Weingart

If I may simply add to Ms. Kuritzkes' comments in regard to New York City high schools, many of our high schools are now considered theme high schools, where the high school is organized around a particular theme, such as finance and banking, or telecommunications. And of course, that makes partnership more readily possible. All one has to do is to find the correct corporation to sponsor or adopt a high school and you get considerable financial support.

But of even greater importance—and of greater importance to this conference—it provides a ready means of access to the world of work for those students who graduate from these high schools after having been under the sponsorship of a Xerox, for example. It is readily apparent that opportunities for employment will arise within the scope of a corporation of that magnitude.

That concept of the theme high school is a growing one in New York City, and I suspect it will be throughout the country.

Co-Chairman

And what has been the response of business?

Mr. Weingart

Business has been readily responsive to this. That is because they recognize that if they're going to employ high school graduates, they want high school graduates who are well-trained, who are well-equipped, and who are interested in entering their field of endeavor. And so we find that businesses are very receptive to sponsoring such high schools.

And obviously, it's helpful to us, first of all, financially. But in my opinion, even more important than that—because governments can always raise money, governments can always tax, can always find the funds—however, what happens to the youngsters after they leave the schools? Where you have business with interest in the school, you have employment opportunities more readily available to the graduates.

Dr. Marland

May I offer a footnote to this discussion of business-education partnership?

What has been testified here is indeed true. There is an increasing movement of business and industry joining happily with the schools, especially at elementary and secondary levels, to increase the quality of education. However, I think there is one underlying axiom that relates to this proposition. And I'm going to ask Ken Hoyt if he agrees with me or not after I have stated this underlying axiom.

And it's this: the schools are in charge, not business and industry.

And business and industry know that and believe it.

The initiative for the partnership should come from the schools, not from business and industry. And business and industry leaders know their place. They don't want to be educators; they do want to be partners. And they do want, if you will, in a self-serving way, to improve the product of our schools, both for their manpower needs and for their

customer needs, and for the sale of their products.

But, whenever we think—in America at least—of the school partnership with business and industry, the schools are in charge; the initiative for the partnership resides with the school's leadership.

Dr. Hoyt

If I may, I would like to comment briefly on that because I have worked on this partnership concept now for many years.

I have tried to write about it as collaboration rather than cooperation. Collaboration, meaning that we share with industry. Yes, the initiative comes from the school, but it comes from the school with a request to share with industry authority, responsibility and most importantly, accountability for the results.

If educational reform in terms of education as economic development takes place, American industry will get some of the credit. If it doesn't take place, American industry should assume some of the blame. That is the point.

If we look at all of the recent United State proposals for reform that have come from industry, almost without exception they start by quoting the education system in Japan. They say we are not competing with Japan in the world marketplace because Japan's education system is superior to that of the United States.

I have been very interested in recent writings of educational reform in Japan, to see some of the Japanese saying we should become more like the United States.

Isn't it odd that the United States is saying that our system should become more like Japan's, while Japan is saying that maybe they should look at something in the United States.

I think there is something there for all of us. What we need to do is share the best that each system has and rid ourselves of the worst. If we can do that, then those we seek to serve —the students—will benefit. And that, after all, is what we are all about, is it not?

That is the goal.

Dr. Christ-Janer

I would like to raise sort of a disquieting thought that occurred to me as I prepared for here and as I'm listening.

We talk aboutt he importance of vocational guidance and also general educational guidance. The thing that I lack information about is that any guidance system has to be delivered by people, and I'm not aware what kind of impact we're having on the schools of education, or wherever the guidance counselors are being trained.

We might have a marvelous seminar here in terms of our articulation of goals and desires and programs but in the end we have to have some people coming out of the colleges who are going into the secondary school systems and into the colleges who are really trained as guidance people. And we've not really talked about that much in our conferences here and I feel that until we do address that, we may have great theories but we lack the delivery system.

It's a concern that I have. As I say, it's a disquieting concern.

Ms. Kudo

We're talking about vocational guidance and we're talking about career education and career development. I've heard talks today in terms of counseling and then I hear guidance on the other hand. So, what are we talking about? Aren't we talking about people in our schools who work with young people in terms of the guidance of the total development, as well as selecting occupations and that sort of thing?

So that if we depend on a particular person in one school to do all this, it isn't going to be done. We're going to have to depend on all the adults that have anything to do with young people; and therefore, we're looking at our schools, we're looking at our teachers and our adults as the people who work with youngsters for this growth and development.

Now, I'm just asking a question. Are we talking about counselors as counselors or are we talking about guidance people?

Co-Chairman

Dr. Nishida, please take the floor.

Dr. Nishida

Thank you very much.

Now, Ms. Kudo has posed the question of who is going to take charge of guidance in the cooperation between industry and schools. I believe that we have to attach much importance to schools as the environment that surrounds the students in the cooperative relationship. There are all sorts of conflicting interests and dilemmas in the society. More than any other institution, the schools have to assume

the role of "purifying" those problems.

The schools in turn are linked to the society through "pure" techniques such as basic techniques and technical studies. At present, we see that schools in Japan are totally cut off from the society. Yet, when schools cooperate with firms to fill the gap, it could well lead to the destruction of the academic environment. This point needs careful consideration.

Secondly, all the teachers should participate in vocational guidance, but we currently have a shortage in Japan of teachers who undertake career guidance, vocational guidance, or vocational education. Ashiya University has an important role of supplying teaching staff in the above fields. They are welcomed at many schools, and almost all of them get employed. Now, the very important issue is how to train staffs in this field. I would like to speak later on this point. Thank you very much.

Co-Chairman

We are going to continue our discussion this afternoon, so unless you have a very urgent message you'd like to deliver on this occasion, we'd like to adjourn the meeting until the afternoon.

Mr. Chairman, do you have any comments?

Chairman

Would anyone like to comment on the opinion of Dr. Nishida? None? Then the next second session will deal with this topic. The morning session is now over. Thank you very much. (applause)

SESSION Ⅱ

The Reform of Educational System and Current Issues of Vocational Guidance (Continued)

Chairman

I shall go on to the afternoon session, Session 2.

As I mentioned earlier, this is a continuation of the discussion from Session 1. Would anyone like to raise their hands? Anyone, please?

Dr. Marland

One question came to mind as I heard the two papers this morning, one from Ms. Rangel and one from Mr. Hoxter. Both of them referred to an individual in their structure called the careers officer. And they seemed to imply that this was a new and emerging title in the British system but I didn't hear the title defined. When I hear the term "officer", to me it carries a stereotype of an administrative authority, distinct from what I would call a humanistic counselor.

I wonder if either Mr. Hoxter or Ms. Rangel would care to clear that up?

Ms. Rangel

Yes, careers officers, as distinct from careers teachers are members of an independent body. We're part of the educational establishment but we're independent in as much as we're not attached to the schools. So, we're counselors who go into schools and counsel and guide individual youngsters, but we are not part of the school set up.

Does that answer the question?

Dr. Marland

Yes, it does to a large degree.

Thank you.

Am I correct in assuming that this is a new instrument within the United Kingdom's system?

Ms. Rangel

No, it isn't.

You may have heard the title youth employment officer, which goes back a very long time. I can't actually say how long. I don't know. In 1909, apparently, we originated as a professional body. So we've been around a long time.

Dr. Marland

What was the original term?

Ms. Rangel

Youth employment officer.

Dr. Marland

Okay, now I'm back with you. Thank you.

Co-Chairman

Any other observations? Dr. Zenke?

Dr. Zenke

Many reports that were given this morning dealt with the connection between school education and plants or industry. I think the two connections between schools and the industrial society could experience two problems which I believe are common to all industrialized societies.

One is the conflict between the quest to raise the standard of each individual student and the basic requests demanded of schools. The other problem is the danger that the school is put in a relatively weak position in the relation between schools and plant or industrial society. In this case, there is a tendency to train students to suit the needs of industry. The F-Test could play a very significant role in this situation.

So, I would like to touch on the F-Test and the philosophy behind the F-Test. The nature of this test is very different from the conventional occupational choice test in Germany. In this test, the emphasis has been placed on accurately stating the occupation to which each student is suited.

It demands that teachers be able to clearly tell the student what profession he is suited to. By contrast, the F-Test places importance on the students' past experience in the overall student-teacher relationship. Therefore, in case the F-Test is introduced in Germany for career selection, the teacher can explain to the student where he stands in the social, vocational and industrial background, rather than insisting on a specific job.

Some of what I say will be repetition, but I think the F-Test adds a moral aspect, or rather a deeper meaning to the conventional German test rather than concentrating on a specific profession. Since it has this characteristic, the F-Test can be used as a supplementary means to add dimensions that can be placed along side the experiences of the student's life. By doing so, the teacher can avoid limiting the student's career to one profession through a narrow path.

I understand that the philosophy behind the F-Test of not merely selecting one job could work effectively when the student changes his job many times.

Dr. Pellerano

Well, let me now talk about relations between schools and business ...ms. For a long time, schools and business firms were wary of each other in France. They were cautious about each other and convinced that the other tried to establish some form of relation with us or tried to approach because of some intention. Only this aspect of wariness was emphasized.

The situation has been changing substantially in the past several years. On one hand, we have been persuading schools, particularly school teachers, that they should assume responsibility for students with regard to employment. They are responsible for students not only in schools but until the students get jobs or professional positions. In other words, until employment opportunities have been given to the students. We tell teachers that their responsibility for students does not end at the school gates.

On the other hand, we have been persuading enterpreneurs that it is essential for them to approach schools in respect to training young people they really need. And enterpreneurs have been assured of the importance of cooperating with schools in order to train young people who are adaptable to the technology and types of jobs offered by their enterprises.

Our efforts have borne fruit and resulted in agreements. Now we have agreements or arrangements establishing relations between schools and business enterprises. We call them sister relations and sister relation contracts. In many cases, schools play greater roles in implementing sister relation contracts. By entering into these contracts, schools and business enterprises can take full advantage of their educational and training resources. Students are assured opportunities to visit enterprises to receive temporary training via the contracts. In the meantime, representatives of enterprises visit schools to observe classes. This is experienced by students in French schools.

This school-enterprise relationship has an impact on the contents of school curriculums, both academic and non-academic - an impact on whole aspects of school life with the greater approach of enterprises to schools. This relationship covers a wider area of activities, helping students know better about the economy and society in general. Needless to say, school

teachers are normally the first to get more familiar with the economy and society, followed by students. There are cases where those already employed return to the schools to tell their work experiences to their juniors.

We have a vocational guidance service in France offered in some cases by private enterprises. Vocational guidance counselors, most of them non-school staff members, visit schools occasionally. When they are out of school, they offer the service for the general public. We have a system in France where people at large can see counselors. The system has established very smooth and close relations between the business community and schools. Vocational guidance counselors sometime play the role of animator or coordinator for enterprises and schools when they make a contract.

Now let me speak about how I look at the F-Test. The test, used in a very advanced form, enables us to evaluate what students have learned at school and how they can use it at workplaces. I think this is the most important point in the F-Test. The test is also applicable to the school activities of students. In a nutshell, it can be used for comparison. It can be used, for example, to compare work experiences with school life experiences, both academic and non-academic. Let me terminate here for now.

Thank you very much.

Co-Chairman

Dr. Zenke's comment is very appropriate, but we are going to pursue these aspects this afternoon, after the coffee break.

The latter part of your speech, Dr. Pellerano is also related with the F-Test.

But to establish dialogue among ourselves, I would like to focus our discussion on one or two issues.

I think, if I'm not wrong, your speech is related to establishing a bridge between the schools and the business world. I think we could start our discussion on this because this morning, several persons have mentioned this aspect as well.

So, do you have any comments on this issue?

Dr. Hoyt?

Dr. Hoyt

Yes, I would like to observe the relationship between the business community and the school system in the light of our topic of educational reform.

The classical problem that we face in the United States may differ somewhat from the problems faced by other nations. Let me describe our situation, and if it has some applicability, it might be useful.

I think I might start by observing that in a typical American city, on a typical day, if you consider the theoretical partners to be involved—namely, the business, the school and the students—on any typical day, in any typical town, if any two of the three meet, they talk about the third in a critical way. That is, the students and the teachers talk about the bad business system and how business is doing a disservice to people and being dishonest and taking unfair advantage of people. The teachers and the business people talk about the bad students and how today's students are no good and today's students don't want to work, and today's students are lazy, and today's students are not the sort of people we need to be productive citizens of tomorrow. The students and the business people talk about the bad school system and how the school system is not turning out people who are really prepared for work.

Now the truth of the matter is, none of these partners is as bad as we have made them out to be. Our businesses mean well, our education system means well, and our students are better than we have given them credit for.

We need each partner to get to know the others better—to relate better, to understand better, to appreciate each other more.

Before now, we have been going at reform under some kind of false assumption that says the best way to get our students ready for the real world of work is to lock them up in a school house and keep them away from that world. That is not the best way to prepare students for work. The best way is to let them experience work, to let them see what work really is.

You don't learn about work out of a book. Reading about work is like reading about swimming. I think that the way to do it is to experience it, and you must get out and experience it.

This is what we are trying to do. The partnership thing says we work together.

There are some things that the business community can tell our youth about prepara-

tion for work that our teachers do not know. Many of our teachers have never held a job outside of the education system. They do not know about the real world of work. The business people do know about it and can share it.

When the business people come into the school, they learn to better understand and appreciate the problems facing the teachers daily as the teacher tries to motivate the student to learn. This may give them a little more compassion for what the teacher is up against.

When the teacher goes out in the real world of business and industry, that teacher can better understand the importance of the profit motive to the businessman. They can understand economic education from a practical standpoint, better than they could in a school.

And when the student has the benefit of this interaction, it makes a world of difference. I have stated the problem many times, I see it as two fold: One is the problem of getting the business community to take hold and work with us. The other problem is getting the education system to let loose. The education system doesn't want to give up anything, but we must—we must work together.

The education system must let loose, the business system must take hold. And if the student is to benefit, both of these things must happen.

We must concern ourselves with how much benefit comes to the student—not how much credit the school get, not how much credit the business get—how much benefit comes to the student. That is our key concern, and I am concerned about the crucial necessity of preparing today's students for tomorrow's workforce. And tomorrow's workforce, that's going to be our topic tomorrow. But that is not going to be the workforce of today.

And we must prepare our students now for a working life in the 21st century. That is the real challenge we face. I think President Fukuyama has sensed that by calling this conference. And I think that if we're true to what this conference is about, we should concentrate on things such as that.

I hope I've not spoken too long on this, but I am very, very concerned about the problem.

Co-Chairman

Dr. Röhrs, please.

Dr. Röhrs

Well, I say the contact between industry and school is not enough. It's not enough that we send the pupils to the factory.

We know in Germany 1,600 vocations and jobs. It would be miraculous if a child who goes to a factory finds his real job. It's necessary that, perhaps with the F-Test, we motivate a discussion about the work, profession, and jobs so that the kids may have an inside understanding of the practice of this world.

The next step should be that the real teacher, who is informed about the professional fields, would try to interpret different professions and jobs.

In Germany we have profiles or pictures of professions. And in these profiles are described the possibilities of a job, of a profession, the career, the dangers of the job, and the qualifications which are useful and needed toward this career.

The second matter would be to study such profiles. In my belief, the third step should be a careful visit to factories and vorking places and a discussion with the workmen in order to get a first impression. And afterwards in the school, you may even deepen and correct the insight or impression you got in the factory.

And the fourth step could be that you send a child, a pupil, to very carefully selected place in a factory, or office. If a teacher should advise him, we need someone who is very well-informed about the vocational work because the average teacher is not able to inform and to motivate in a very special sense concerning the world of work.

I have to stop, but I believe that we have to seek these four steps. Then we have to have in mind several systems to try to solve this problem.

I mentioned only the so-called polytechnical education in the eastern world, which has a lot of experience with that method. And we have to think about the experiences they've had with this polytechnical education.

There are very different experiences which differ from country to country—from Austria to the German Democratic Republic. It's a very different experience here too.

Co-Chairman

Dr. Dupont.

Dr. Dupont

I think we have two problems to solve.

The first problem I see are differences,

which are sometimes very big between the aspirations of youth and employment possibilities.

And a second point is that in Switzerland, for example, firms don't have the same interest in collaboration with schools. Some are positive others are indifferent.

Perhaps others in other countries have the same problems.

Co-Chairman

I think that this is a very serious problem. I think the problem is who is going to take the initiative in establishing the bridge.

Dr. Marland

Let me try that.

If I understand the question, there is a difference between aspiration and reality in terms of finding the right job for the right individual. We have to allow for that.

I think that it was treated pretty well this morning by some of the papers and by Dr. Pellerano earlier today. The differentiation has to be based, namely, on the different kinds of people aspiring to different kinds of jobs, and indeed it is the work of the counselor to help those choices be made.

But when you come to the question that Dr. Dupont has raised, namely: "Where does the initiative come for bringing about this partnership between the schools and the business community?" I have tried to say this morning in the footnote to another paper, that from my own experience the initiative must come from the school—on the schools, under the ground rules that the schools declare. Why? Because our society and our laws, and at least in America, our whole scheme is based on the fact that the schools are responsible for educating our society, not business.

But, if the schools are wise, and Dr. Hoyt may want to elaborate on this, they will draw upon the creative, economic, intellectual resources of a variety of businesses to enrich the experiences of children—and not solely in the workplace, Dr. Röhrs, in the classroom.

We can cite from examples that Dr. Hoyt and I have been involved with over the years of able business people—men and women—coming into the classroom at grade one, grade five, or high school, depending upon the interest of the child, the relevance of the person from the business world, and the creativity and adaptability of the teacher. It enlivens the reality of learning to have another adult to share with that teacher in the experience that those children are undergoing.

And to me, it is a very real element of vocational guidance. When a secretary, male or female, comes into a sixth grade classroom—let's say of twelve-year-old children—and talks about the need for spelling, or for good penmanship, or for grooming, as an important part of growing up, it means something more than having the teachers doing it day after day. The reality of the business person in the classroom is there.

But, I say again, to answer Dr. Dupont, the initiative remains with the school, under their rules, their conditions, their terms.

Co-Chairman

I'll ask Dr. Tatur, Dr. Zenke and Dr. Röhrs to speak in that order. So, Dr. Tatur.

Dr. Tatur

I agree with Dr. Marland's opinion. Dr. Marland and some other people discussed whether the industry or the school should take the initiative. I also believe that it is the school that should take the initiative because the studies for learning a profession compose a part of the education. In this sense, the school which is responsible for the training of the young should take the initiative.

I believe that Dr. Zhiltsov, who was the panelist from our country up to the 4th meeting, has already mentioned that the law in our country states that all schools should have a student workshop. The companies in each district, in turn, are obliged to install a production complex for studies, where students can select the career alternatives at a complex. So in our country, we do not have a serious problem with the relation between production sites and schools.

It does not mean however that we are free of problems. Our problems are somewhat different from those mentioned earlier. They are to let students realize that their career selection in school workshops is one of practical importance and not just for fun or for education. The students will have a sense of responsibility only when they realize that they are engaged in production in the true sense and that they can profit from their efforts.

More ideally, those in charge of the school management and not only the students should have this sense of responsibility and schools

should have worksites and production complexes for training.

It was the prominent educator in our country, Makarenko who for the first time in the 1930's gave us the concept of workshops and production complexes for training. Since then, there were some periods in which his idea of installing work-related facilities was forgotten. Today, Makarenko's idea has made a comeback. Attempts are made to let a group composed of 8th or 9th graders engage in work under one chief engineer at companies. One difficulty we face here is that while industry is trying to make profits, we, on the school side want facilities where students can work under normal conditions. A vast amount of money is required to construct such facilities. So, the important thing is to create a place where students can choose a worthwhile and an interesting job.

These are the problems in our country. Thank you very much.

Co-Chairman

Dr. Zenke.

Dr. Zenke

The picture of the three partners: school, business and the students.

For me, in the picture, there's a program too we have to see, especially, a program for schools. When these three partners are real partners, then the school must have its own philosophy. And I think that this philosophy couldn't be to bring up the students as quickly as possible to the right professions industry needs. And this philosophy couldn't be a method; for instance, going to the factories and making some observations of them, and so on.

The philosophy, I think, the nuclear philosophy, is to develop the whole person as brightly as possible and not in connection with factories or special interests. They are changing more and more quickly and schools never can catch this development. So, we always have to go to the industry, "Please, what's happening tomorrow?"

Therefore, we should concentrate on a very, I think as a German, on a very old philosophy, to see the whole person and to develop the whole person as intensively, and widely as possible.

And I think, this is one aspect of the F-Test. For instance, the F-Test regards the arts and the housework and the social situations, and so on and so on. I think this is for me, a special work of this F-Test—and in Germany, too.

Let me connect another idea. We are always discussing professions maybe in the sense of the 18th or 19th century. Maybe it's a picture that's passed away. Maybe our concept of profession in too old now.

I think in modern firms and factories, we can observe that a man, and, in the same way a woman has to change his qualifications very often. And so, we shouldn't discuss with the students, wether they should become teachers or doctors, or whatever you will. And this is one other part of the philosophy of the F-Test. It doesn't give students the idea that when he's working through the test, he'll know what to become later on. Maybe we should concentrate in school and look at the different proposals and responsibilities in society. You have many possibilities to work with towards this aim. And it's not of primary importance to be a specialized man or a specialized woman. I think in this way we have to work more in school.

Co-Chairman

Then, Mr. Weingart.

Mr. Weingart

We have been talking about schools working with industry, working with corporations, and working with large business organizations. It's clear to me that we're all in agreement; there's consensus here.

All of us agree that schools and industry must work together for their mutual benefit. There's no problem; there's no debate in regard to that.

Moreover, schools have to take the initiative. I certainly agree with Dr. Marland that the schools have to lead the way. However, we have to realize that in our society, in the United States, and in other societies, industries exists to make profits. Let's put it on the table; they are profit-making establishments. There's nothing wrong with that. There's nothing dirty, there's nothing bad about making a profit. And in the course of making that profit, there are many such large corporations that do give money for worthwhile activities. In the United States, we see Mobil and Exxon contributing millions of dollars for cultural enhancement, and that's perfectly all right. But nevertheless, the basic existence of the corpo-

ration is not altruistic.

Now, if we bear that in mind, and we realize that schools have to take the initiative and we want the corporations to work with us, and we want to work with the corporations, we have to—if I may use a very mundane expression—we have to make it worthwhile to them. We have to show them the benefits that will accrue to these corporations by working with the schools, that they will get, as we said this morning, better trained individuals, they will get graduates with skills that are honed, that will help the corporation succeed in their endeavor. So the schools must make a conscious effort to show industry that it is certain that they will benefit greatly from coming into the schools.

We take the initiative, but we show them: "You come in and work with us, and you will benefit, too."

Co-Chairman

You don't say that schools need autonomy?

Mr. Weingart

Oh, no. The schools should not loose autonomy. If the schools are to give up their control, then the schools have lost more than they have gained.

I certainly agree with that.

However, I think—I know—that it is perfectly all right and it works out that corporations will work with schools. That bridge will be broadened and the transition will be greater. It will be easier for the students; it will be easier for the corporations. And the schools need not give up control over the curriculum. As a matter of fact, the curriculum can be enhanced because the corporations, as we mentioned, will send in experts to help the school.

This is done in the United States. IBM has a current practice where they take some of their senior employees and put them on leave for a year and they go to teach in a university for a year. It's perfectly all right. So, I don't believe that the university is losing control because of that.

So that the schools must not give up their control. The schools are in control of the curriculum, of the processes, of the academic program, and it can work out.

Dr. Christ-Janer

Yes, I'd like to pursue that just a little bit.

The purpose for our gathering is for a conference on vocational guidance, and it would seem to me that in a sense we have a marketing problem. Those of us who are here are all believers in why we are here, which is having to do with vocational guidance.

So, then I think we need to be interested, in a practical way, in how we market what vocational guidance really is and why it is important to the audiences to which we have to sell it.

One audience clearly would be education itself. In America, in many of the universities and colleges, if you were to be talking about the importance of vocational guidance in most of the educational programs offered, you wouldn't be very well received. So, we have a marketing problem with our own universities, where they train, in large measure, the teachers who come out to go into the classroom where they serve as role models, as mentors, where they have profound influence on the students. We need to get programs in our universities that educate those teachers, and show why they should familiarize themselves with what vocational guidance and counseling can really do.

We need to really educate our students and also business and industry about why vocational guidance is important.

So, I think we need to be thinking a little bit about strategies here at some point. The reason that I think you have some more persuasion to do is that you've got to look at parents, at school boards, at legislators.

Just put yourselves for a moment as a superintendent of schools in any district you can think of. Your bond issue has just failed, the legislature has just informed you that your budget is cut 15 percent, you have a whole new culture of students coming in—minority groups—and you've got problems that you never dreamed of before. Where do you go to cut first? Common sense says you go to the counseling section first and cut out people.

It says that until we can persuade people that you do not go to the counseling center first or the guidance center first, until we persuade them that that has to be afforded, I don't think we'll ever really have the impact that we're all hoping for.

Ms. Kudo

One more observation, if I might.

We're talking about people from different countries and it's interesting to me that Dr.

Zenke says that we need to work or we need to be concerned with the development of the whole child. And I think that's been the tenet for education and training for teachers in our country for years and years.

But, I think we also need to realize the philosophy under which we're working with young people. We talk in terms of all these squares and all these round holes that we're going to prepare our people for. And we're also saying that the individual that goes into these must have aptitude for the round hole or for the square hole; and if they want to go in a round hole, we give them education so that they become round hole people. Because that's how they're going to be most effective, happy with themselves, as well as contribute to the society in which they're going to do this work.

However, there are some countries that feel that all of these square holes must be filled with square people, and education must make all these square people for us so that they will develop things or make things or work in that square hole for the good of the state. Now, we have to realize that that's the kind of philosophy we have.

But, we're here today, hoping that we'll all come to one mind in terms of preparing young people, old people, or people in general for the kind of things that they have aptitude for that will make them happy and enjoy a fulfilling life, and yet also contribute to the society in which he lives.

Now that to me is sort of the background under which we're all working here. So working with industry as a partnership and developing the kind of person we want, in the way working with industry is one thing—that's just one strand, or one media, or one strategy to work for.

There are some basic things that we're also talking about under which we work as educators, or as government officials working with the development of young people or old people or people in general. I think we must remember that.

Ms. Kuritzkes

There's also the point that Dr. Dupont made before, of whether it is a question of young people being guided by their aspirations, and whether, in fact, just guiding them in accordance with their aspirations is good enough in the society in which we live or whether we also have to deal with the reality of the employment market, the labor market, the job market that is out there.

I think that certainly it is a very big problem in New York City in making sure that when the youngsters who go to our schools come out into the job market that they are in fact prepared for the jobs that are available for them and that should be taken into consideration. And so, part of the cooperative ventures that have been entered into with businesses have not been only to provide the schools with the knowledge of the needs and what the job market has out there but also to provide role models for the youngsters.

And also, many of the businesses that have joined in cooperative ventures with our schools have provided a tremendous amount of staff development for our teachers, particularly in this time of the rapid development of the technology that you're going to be addressing in tomorrow's workshop.

The schools are unable to provide the students with the skills to operate equipment that is up-to-date enough in order that they may learn to handle the equipment. At the same time, the teachers have not been trained to deal with the equipment themselves nor to provide the student with those skills that are necessary.

And in many instances, the business-education cooperative ventures have provided not only role models or opportunities for students to work on equipment that is state of the art, but they have also provided the teachers in our schools with the staff development that they need so that they in turn can transmit the skills and/or the attitudes that are required to be successful in the job market.

Dr. Inaba

I find it very interesting that in talking about business and industry many of the participants always fall back on the F-Test. I'm sorry if we seem to be overshadowing what we should be taking up this afternoon.

However, I think there have been valid points that have been brought out. The question of Dr. Dupont saying the difference between aspiration and reality—and all pointing back to how the F-Test can be helpful in solving many of these kinds of situations. I think it's very applicable, and very appropriate.

Many times I think in even Dr. Zenke's presentation, we find that we do have many tests that tell students what they should be, or what they should be going after, as far as their aspirations are concerned.

And bringing up the subject of the three participants in the education of the child, namely, the student, industry and the schools. Now looking at all of that, I think the students should play a vital part in making their decisions. And, as appropriately said by Dr. Zenke, this is where the F-Test comes in.

If we can teach students the processes of how to go about choosing an occupation, and then they take their own initiative in the knowledge that this is what they should be doing whenever they select an occupation, then I don't think we have to be afraid of saying that, especially in the early ages when the students aspire to be many things, if they know how to go about choosing occupations properly, then they can make that kind of a determination themselves. I think this is the right track.

This is where I agree with Dr. Zenke and his feelings of how the F-Test can be instrumental in solving many of these kinds of problems if the students take their own initiative and know the processes—if the students know about themselves if they can go about finding about more about what they want to be before making decisions. If they go about experiencing different kinds of jobs so they can make appropriate kinds of decisions knowing what the situation would be like, I think all of these will really help in trying to help students make appropriate choices whenever we talk about jobs.

Thank you.

Co-Chairman

I think that is a quite interesting observation, but I have one comment here.

What is the business community's reaction in the use of the F-Test? We are trying to establish a bridge between the schools and business and industry. Your presentation was mainly from the school's point of view.

Dr. Inaba

I don't think business would ever oppose the fact that students know what they want to be and where they want to go. In fact, I think that this would be more beneficial to the business world.

I think if the students know what they want to be and where they are going without just being swayed by monetary values and things like that, you have better workers. And I think the business world would surely appreciate the fact that students really know what they want to be when they enter industry.

Ms. Barney

As I mentioned earlier this morning, the business community, I know, would appreciate something like the Fukuyama Profile, because what it does, as Dr. Inaba mentioned, is get the student involved in a process, in an experience. And this is exactly what the business community is telling us: help us develop students who will be able to make decisions, who will know the process. You don't have to turn out people who are in specialty occupational areas, because they can do that. What business wants, are people or students who have adaptability, can be flexible, and know how to go about making changes as they are needed or appropriate.

Co-Chairman

That is a very interesting observation.

So, the test could be a valuable endeavor in establishing a bridge.

But, this morning you were talking about higher education. How could we establish a bridge between higher education and the business community?

On an elementary level, the F-Test could be very effective, but on a higher level, how can we tackle the problem?

Dr. Marland

I think that there were some comments this morning where people had thought of the F-Test for higher education. And if I remember... I know that I don't remember who commented on that. I've had no experience with that at higher education.

I do think that, since I have the microphone for the moment, let me continue a little on a side thought that may be relevant.

I think that at all levels of education—elementary, secondary, and higher education—we seem in this conference to be focusing on something we call vocational guidance as though there were an individual providing vocational guidance, such as someone that we might call a counselor. That's to be hoped for, to be sure.

I think that we are dealing in this conference, and have been for the past few years,

with an abstraction, more than an individual. We're dealing, I hope, with the generic meaning of vocational guidance, as it relates to all teaching at all levels.

In America, I can assure you, that if we stick to some of our aspirations about so-called guidance counselors—a 1 per 300 students is considered a very fine ratio—we'll never make it. The other competing demands upon educational budgets, personnel, are such that, I believe all of us from America would agree, that it' s unlikely that we'll ever have this person called a vocational guidance counselor in sufficient numbers to satisfy the needs of our children in the schools.

Given that, we still have millions of classroom teachers well able to comprehend the philosophy and theory of the F-Test, the function of vocational counseling, and if you will, the whole theory of career education, which Hoyt and I have been attempting to communicate to the United States for the past fifteen years. Namely, that all teachers are career education teachers, which means that all teachers and principals and supervisors are vocational guidance counselors.

That's the abstraction that I hope we can continue to try to comprehend rather than assume that we're worried about some individual who is the vocational guidance counselor.

Co-Chairman

Just a second, I'd like to establish an order.

I'd like to ask Dr. Christ-Janer, and then Mr. Weingart, then Dr. Nishida, then Dr. Hoyt to take the floor. I'll ask these persons to speak in that order.

First, I'd like to give the floor to Dr. Christ-Janer.

Dr. Christ-Janer

You asked about higher education and the bridge to business and industry.

I suppose that we've all tended to think of higher education as still being something of an ivory tower, which is kind of separated from the world of business and industry. That's really not the case, at all.

For many, many years, when one thinks of the programs that all of us have had in higher education—internships, externships, independent study, experiential learning, visiting lecturers coming from business and from the professions—where most of our students do not finish in four years, they stop out, they get jobs, get in the work force, then come back and finish out in five or six years. If we think of all of the part time students, and they're all involved, one way or another, in some area of the workforce. So, I think that in higher education there has been, for a lot of reasons, a connection going with business and industry.

One further reason. For the reason that higher education might be more closely aligned with business and industry, we need a lot of money. Most of us are not public, so we have to go out and talk to business and industry in order to solicit funds. In this way, we began to be somewhat familiar with their needs and their hopes with what our institution is going to do for them.

So, I think in this sense, there have been some bridges. Many national conferences are going on now in the United States talking about the importance of relating business and industry and education.

So, we're beginning a bit to introduce this kind of bridge. But, I must say, we've had it for a long time from the point of view of the student. The student has been out there in the workforce in almost any college and university that I know. They have had opportunities to do that, so we've had some connection with business and industry.

Co-Chairman

Do you think that it will be conducted under the newly revised tax system?

Dr. Christ-Janer

Oh, sure. I think the internships, the externships, all of that will continue. It will not have an impact on that.

Co-Chairman

I understand that the new system is going to remove all of the so-called tax shelters that have been a strong incentive to provide funds.

Dr. Christ-Janer

From business and industry they will have certain limitations on how they can write things off, on how many years. There'll be some real impact.

But you just wait till our tax lawyers get at that. We'll figure a way out!

Co-Chairman

Okay, fine, thank you.

Mr. Weingart.

Mr. Weingart

Just a comment regarding Dr. Marland's

comment.

You talk about all teachers being guidance counselors.

I think you'll agree with me. It's a consummation devoutly to be wished, but alas doesn't work that way.

This morning, in her talk, Ms. Kudo mentioned one of the problems facing the Hawaii school system is unionization. New York City has had extensive experience with unionization of teachers and principals, and other supervisors in the system, and guidance counselors. And when you get into that, I don't know what will happen in Hawaii. When you get into that you have a demarcation of roles. And heaven help us if we have teachers serving guidance functions when we have licenses for guidance counselors and the school board decides to eliminate guidance, because as Dr. Christ-Janer said, it's one of the easiest areas to cut down on in budgetary hard times.

So that unionization—I don't know how it will happen in Hawaii—certainly has created that problem in New York.

Dr. Marland

Mr. Weingart, I'll get back to it when my turn comes.

Co-Chairman

Okay, Dr. Nishida.

Dr. Nishida

My opinion is also related to what Dr. Marland has said. In Japan, the subject teacher and the class teacher are in charge of career guidance in principle. Vocational guidance is to be given throughout the whole educational process, but in reality, it is far from sufficient. In the organizational setup, middle and high schools have career guidance directors, the counterpart of counselors in U. S. and Europe. However, unlike the guidance counselors in the United States, the people in this position are not teachers. They are in charge of subjects, and also of classes in some schools. Usually quite elderly staff assume this position. So, the staff in charge of subjects and classes are supposed to cooperate under the overall plan prepared by the career guidance director.

In fact, this idea is not spread sufficiently. A great many people regard career guidance to be something totally separated from education. The important point is, as Dr. Marland has said, all teachers, parents, and companies should take charge of career guidance of the children. I think that this point is also emphasized in the career education advocated by Dr. Marland.

In the future, all teachers including subject staff and club instructors through club activities, will take charge of career guidance of the student. The current curriculum in Japan places very much importance on work experience. However, some surveys conducted on teachers show they believe that work experience is insignificant. These people need much enlightenment in the future.

The most important point in career guidance is to let children aim at a certain career. They will learn about themselves and about the world of professions through this process. This also is the educational doctrine of Dr. Fukuyama.

Thank you very much.

Co-Chairman

Dr. Hoyt.

Dr. Hoyt

I'd like to comment on three things.

First, let me clear up the notion of work experience in industry in terms of its purpose. Its purpose is not for a youngster to go out in a factory and then say, "This is what I want to do the rest of my life". Not at all. Its basic purpose is to show the youngster the importance of work and the dignity of work in all parts of society, and to help that youngster accept the feelings of work values as part of his or her system of personal values.

We want children to grow up wanting to work. We want them to want to work. Work is a very good part of total lifestyle, and it is important to get that across.

It is not a question of choosing a vocation at that age. What we know about career development—psychology career development—is that most will not make any kind of permanent career decisions until around age 25. At age 16, 17, 18 they are following youth jobs, but not permanent jobs.

But, that's not the point. Dr. Inaba said it very well, we want them to learn the process of decision-making. They're going to change occupations several times in their adult working lives. We need them to know how to make those decisions. The right to change is just as sacred as is the right to choose.

In terms of the school being in charge—this relates to the school being in charge—of course, the school must be in charge, because the goals

of the education system extend beyond that of preparation for work. The goal of education as preparation for work is but one of the goals of the education system. We want to prepare people for life. That means preparing people for work, preparing people for living, preparing people for enjoying life, preparing people for appreciating the culture. All of these things are part of the goal of education. Preparation for work is simply one of those goals. That's why we must put this in some balance.

But, we are not talking about forcing premature specific career occupational decisions on youth. Not at all. We are teaching them to value the concept of work as part of lifestyle. We're teaching them career awareness, career exploration, career planning, career decision-making skills that they are going to use several times during their lifetimes.

I hope that clarifies my intent a little better.

Co-Chairman

Thank you.

Dr. Zenke.

Dr. Zenke

One other point is to look at the concrete situation of the labor market. This concrete situation today in the Federal Republic of Germany is that we have high unemployment, and there's no change for the future. And we have a demographic development I described this morning.

Those tendencies may include for the schools a danger, because the schools may be pressed into a situation where they have to orientate directly toward the interests of industry and to forget what we have discussed this afternoon—the wide and bright development of the young people.

Therefore, I think schools can't erect a working place, no one working place. What we can do in schools—and Dr. Inaba brought our attention to this aspect—is to have as bright as possible an education, because we can see in Germany that the students from grammar schools or the unemployed teachers, who have studied for six or five or whatever years, have the best chances in the labor market. They have no special qualifications, but they have learned the process, they have learned to decide, they have learned to change and to choose, and so on. On the other hand, students from the secondary schools qualified for a special profession have no possibility to catch a job. But they are specialized, you see? And these students, have better possibilities.

And I think this is an experience that we should bring to the philosophy of the new schools. To learn the process, to develop the bright, and so on. But, we have to say, therefore, we have to develop our schools, too.

Our normal schools in the Federal Republic of Germany can't develop this kind of education. They can't do it. So, we need a new school, too.

Co-Chairman

Thank you.

Ms. Rangel.

Ms. Rangel

I think I'd like to make a brief comment about the point that Dr. Marland made about whose responsibility it was—whose responsibility the guidance and counseling was, whether it was an abstraction, or whether, in fact, we have identified individuals.

I think that there are two approaches at the moment, as I see it, in Britain, because it is being recognized that anyone who influences a pupil's development—by that I mean his personal development in the broadest educational sense—to that extent, anyone who influences is a counselor, and must therefore have some responsibility for guiding them.

On the other hand, I think that it is also important that we have independent counselors and those are the kind of people I was referring to as careers officers, who can, in fact, give impartial guidance, because I think it has to be recognized that people connected with educational establishments do in fact have some vested interests.

Co-Chairman

Thank you.

I'd like to ask Dr. Kida.

Dr. Kida

I would like to mention a few points that came to my mind as I listened to your comments.

I believe that the vocational guidance in each stage of education at school carries different meanings. In other words, we have to clearly distinguish among vocational guidance in primary, secondary and higher education in view of their roles and relationship to education.

As Dr. Zenke noted, different countries have diverse vocational guidance depending on their conditions of industry, labor, stage of development, and also the spread of education. This means that they must offer truly appro-

priate vocational guidance during the primary education stage in the developing countries. However, in the countries of those people present here, where the education is highly developed, I do not believe that vocational guidance is conducted so extensively in primary eduention. As some of you have mentioned, utmost importance must be placed on training the whole personality during primary education. And the global trend is to select careers and occupation in the latter stages after primary education.

In practical terms, I think it is not possible to instruct students on what is required of a certain occupation. In some countries they offer military education at schools, but this is quite impossible. So, it is not possible for schools to be equipped with the facilities that are needed in big companies. We should therefore bear in mind that there are always gaps, distances between the vocational guidance offered at school and that required by the society.

In regards to selecting a career, I believe that the need for appropriate vocational guidance is higher for students in the higher stages of education and for grown-ups who are likely to change jobs in the society.

In fact, I am not as familiar about the situation in Japan as those people who are present here, but generally speaking, teachers at school are not well aware of the condition of domestic economics and industry. And they don't have much knowledge about the vocational techniques that are really needed. Well, I think that they don't need to and that they are not be able to know about such things. It is just not possible for all teachers at secondary schools to understand the latest achievements in high tech industry for instance. What they can do will be limited to gaining a general knowledge of the vocational techniques required by the society. Although it may be several years behind. So, when we talk about the importance of vocational guidance or aptitude today, I think it deals with stages later than secondary education. At least it is true in the case of Japan. The vocational guidance given at Japanese secondary education in fact, is a guidance to decide which university the student should go to. The level of vocational guidance is to determine whether the student should try the medical department, the department of technology, or to study economics. This is at a level where the school teacher can make a broad division of each student—whether he likes music, sports, or desires to pursue further studies.

As students get near the university stage, the teachers would have to aid them to determine their field of study—humanities, technology and so on. But man has such flexibility and I continue to be amazed by some people, particularly in the United States, who studied mathematics, for instance, developing excellent musical theory, or becoming philosophers. The top management in leading Japanese companies are graduates of the department of technology. This person from the United States told me that this is the strength of Japan—the management has undergone studies of engineering. In any case, man has to and can adapt with flexibility to a given job and this, I think, comprises his aptitude in the true sense. So, the vocational guidance at schools, I think, should deal with the student's basic aptitude rather than with the details. As someone has mentioned, the realistic challenge is to prepare one's feelings for dealing with his job. Thank you very much.

Co-Chairman

Thank you.

I think the time has come for us to take a brief coffee break. So, maybe I will call upon you after the coffee break.

(Break)

Co-Chairman

Now I understand Dr. Marland wants to take the floor.

Dr. Marland

When we adjourned a little while ago, one of my notions about the versatility of the term of vocational guidance should have more serious attention from this conference, and I was taken up by my friend Weingart from New York saying that if we expected all teachers to be counselors, we would be expecting the impossible. And he brought to the surface the question of unionization of teachers in many parts of America, and he called particular attention to the report of Ms. Kudo where I was saddened to learn that a labour movement has descended upon her school system in Hawaii. I also know what Mr. Weingart has to live with in New York in terms of union structure. The professional people and I, are equally saddened by that. But I am not talking about finite definition of what we would call in A-

term. Guidance counselors have a professional definition and a certification that comes through certain criteria accomplished through graduate studies and you come out as a counselor or a guidance counselor. They don't use the term 'vocational guidance counselor' very much any more. But the term is, in general, 'a counselor,' and there are such people. Weingart would be the first to agree, that as soon as economic stress comes upon the school system at first it may be the art teacher then perhaps some of the music teachers and then the counselors will be let go under the economic strain. That is the truth. Now whether it is right or wrong to do it that way— and one can argue that art is more important than counseling or vice versa—the reality of the situation is such. I think Weingart would agree. It happened in New York of years ago when New York City came under terrific economic crunch. I think it was something like 1,100 counselors were released from the New York school system.

Now, getting back to my point, I am not talking about the conventional, certified, unionized guidance counselor, I am talking about the generic function of vocational counseling as an element of every teacher's responsibility from early childhood through the graduate school —the history teacher as much as the teacher of foreign languages, the fourth grade teacher as much as the first grade teacher—to help young people comprehend the diversity of the world of work; the reality of work and what it means as Hoyt has written about it. The experience of some kinds of work not as preparatory to a job. But to learn about the meaning of work, the disciplines of work, the joys of work. The reality of work as a part of life. Without work, life would be dead.

Getting back to Weingart's position, I would hope he would look upon my argument as dealing with the generic function of counseling as a part of every teacher's commission. I don't care whether the union likes the idea of calling them counselors or something else that gets in the way of the definition of the professional counselor. You don't have to call them counselors. But you ask them to take on the responsibility of helping young people enrich their lives through learning and experience and that is a brief definition of career education as I have talked about it here now for America a guidance counselor. There is such a three or four years. And I'd welcome Weingart coming back if he wants to debate this further.

Mr. Weingart

Just not really debate, I absolutely agree with you. There is only one thing I disagree with, and that is you said that music and art went before guidance. I'm sorry but guidance went first in New York City. I regret it, but it happened.

Dr. Marland

I was speaking of the United States. Different communities would have different values. Different places would put more emphasis on one or the other.

Mr. Weingart

Unfortunately, guidance counselors are not visible generally. The kids don't see them, the students. They don't appear before a class generally. So that, the invisible, the supportive services were the ones that went first. That was a tragedy. Only now some recovery is taking place, but I absolutely agree with you, with everything you said.

Dr. Marland

Let me add one little footnote. But as we speak of counseling in America, the professional counselor, the kind of person I described with the credentials, the advanced degree, the title, all those things. That individual in reality, in America today is totally preoccupied with what we call college counseling, helping a youngster to determine what college he or she should go to, and then scrambling to help get them into that college, having parent consultation about college choice, arranging for financial aid where it is appropriate for this child, and there is very little time left for what I call vocational counseling. That is why the task is not being addressed because the few counselors we have, why, they make their brownie points on getting people into the college of their choice.

That is the reward system. That is where parents are happy or unhappy. That is where principals are happy or unhappy. So that truth of it is and I think again my colleagues from America would agree counseling in America today has to do largely with getting youngsters into the right college, not into the right life's work.

SESSION III

The F-Test

Co-Chairman

Thank you very much, Dr. Marland.

Now I think the topic we should talk about is the F-Test. So shall we start the presentation with Ms. Barney?

Ms. Evangeline K. Barney

Presentation (refer to pp. 76—80)

Dr. Lawrence A. Inaba

Presentation (refer to pp. 81—82)

Ms. M. Rangel

Presentation (refer to pp. 83—84)

Mr. Marvin Weingart

Presentation (refer to pp. 85—87)

Dr. Karl G. Zenke

Presentation (refer to pp. 88—108)

Dr. Yasukazu Nishida

Presentation (refer to pp. 109—114)

Co-Chairman

I think now we'd better start our discussion on these presentations. So, if any of you want to make any comments.

Dr. Christ-Janer

I'd like to ask Mr. Weingart a question with respect to several dates. From 1977 to 1985, probably in New York you had a population change in the schools. I mean, new cultures coming in—that would be one question which I would be interested in.

Another is, when you gave the profile in 1977, was a longitudinal study made to see whether the students who had taken the exercise did continue their education through graduation from high school?

Mr. Weingart

No, however, I can attest to the fact as to District 26. I was superintendent of that district in 1977, and though I haven't been superintendent of that district since 1978, the population of that district has not changed appreciably in those years. It is still approximately the same. About 23% minority students are in that district. There were about that many then and there are about that many now.

And in that particular district, a fairly large number of students do go on to higher education. It is considered an upper-middle class district.

However, one problem occurred when I was comparing scores in 1977. At that time an analysis was made of the scores of students in Tokyo versus the scores of students in New York, and they found the scores of the students in Tokyo were substantially higher than the scores of students in New York. I was interested in any comments from any of my colleagues who would care to account for that difference.

Dr. Marland

Let me, as sort of a blind man groping in this territory, since I have not had any hands on experience with the F-Test.

As I look at the test, it seems to me that a good many of the questions are cast in the idiom of the Japanese culture. And I would think that the very fact that the cultural overburden of the ways some of the questions are poised, namely, posed suitable for Japanese children, would have an unfamiliar ring to many children in New York City.

Now, could that explain it? And I say this as a rank amateur in the domain.

Mr. Weingart

I think that that's a very interesting point that you make in that respect. Because, when I administered that test in 1984 and 1985 in a number of districts, we modified it to change

much of the terminology. However, in 1977, that terminology had not been changed, and it might be a very good stab in the dark. It might very well account for it.

Dr. Marland

I think we've learned in other kinds of tests in America—notably, the ones that I'm familiar with and the kinds that Dr. Christ-Janer is familiar with would have to do with the college entrance examinations. And we know that in the early years of those examinations, some of them were not suitable for black children. Children from Negro families were not able to comprehend the idioms in which they were cast by Caucasian test writers.

Well, you may be sure that in the last fifteen or twenty years those disparities have been corrected. We have Negro and Puerto Rican and other Hispanic psychologists preparing those test items today.

But that wasn't true fifteen or sixteen years ago, and there was a genuine disparity between black children and white children, Hispanic and Caucasian children.

Co-Chairman

Mr. Weingart, would you like to comment?

Mr. Weingart

I was listening to Ms. Barney's comment on various scores in Hawaii, and unfortunately I didn't jot down some of the scores, but I did notice that I did jot down, for example, under job analysis—we had a drop in scores, and I wrote down, "Like Hawaii." Hawaii had a drop in scores.

I was wondering if you have any theory to account for that.

Ms. Barney

No I don't.

In fact, when I heard your scores, I said, "Ah hah, we're on the same wave." Because it seemed like where you went down, we went down too.

And yet in our efforts, in so many ways, we feel that we're doing much more.

Mr. Weingart

Well, I couldn't account for it. I don't know.

What I do want to point out, if I may, Mr. Chairman, is that—and I sent a copy of the commissioner's new regulations for the state of New York, and although I was reading very rapidly in order to get in within the time constraints before the bell rang again—I just want to reemphasize the importance that I attach to the use of an instrument, such as the F-Test in New York State under the revised commissioner's regulations.

As a matter of fact, I did send some of the copies of those regulations to the university to point that out to them. That is, that in New York State, in grade seven to twelve, now there must be an annual review of each student's educational progress and career plans. That's brand new—never had that. It's got to be done now for each student. Not only that, there must be, and I'm quoting again, "... instruction at each grade level to help students learn about various careers and career planning skills."

Now, this morning we were talking about vocational guidance and the need to have vocational guidance, and the fact that there are few people, or relatively few people, who are trained in that area. And now we have New York State, in effect, mandating instruction in that area, so that there's going to be a demand created.

Someone this morning spoke about the paucity of the delivery system of people in that area. I'm afraid I did not jot down which of my colleagues made that comment, but nevertheless, there's a need now that's going to have to be met, at least in New York State. And I strongly suspect that the delivery system will be cranked up in order to meet that need. And here I would have to turn to my colleagues who represent institutions of higher learning, who may have some comment on that.

Co-Chairman

I think, Christ, you mentioned something about the delivery system. Do you have any comment on this?

Dr. Christ-Janer

As I mentioned this morning, it occurs to me that the key to this whole system has to do with the education of those who are going to return to the classrooms and into the guidance roles in the secondary, and even elementary, levels.

Clearly, the linkage we must establish between higher education and secondary education has been overlooked. We tend, in higher education, to think of it only in terms of the four or five years there with us. Actually, we should be working very closely with elementary

and secondary school teachers—all the way through, from the classroom teachers.

I'm thinking now, for example, of the area of art, because I'm very interested and I have my own art school. We've had on our campus now this year twice—last year and this year—meetings of all of the art teachers from the elementary and secondary schools from across the state, meeting with professional teachers in the college level to develop the linkage. Because it is at those lower levels that you're going to do most of the counseling in aiming them towards careers in the visual arts.

So, I guess I really come to the point that it's in teacher education that we must make our case as we help the teachers who are being trained to understand the kind of role that Dr. Marland was talking about—that they play a mentor role, that they play an advising role, a counseling role, they deal with the student in all the dimensions of that student's life. And we need to make certain that all of the teachers understand that responsibility that they have when they enter into a classroom in the elementary and secondary levels.

Which means, then, that you are going to deal with schools of education... and that's tough. To get them to alter their programs—and I know now that over in Kansas, the teachers there under Dr. Hoyt, all of the teachers that go through teacher education do have some coursework in vocational guidance. Am I not correct? Career education.

But that's unusual. Most teacher education programs do not have that, and that's where we've got to plan some sort of attack. If we're really committed to vocational guidance and career education, we've got to have a strategy for influencing the coursework of teachers who are being trained beforehand, so that they can go down into the schools and do it.

Ms. Kuritzkes

If I may add to that, actually, one of the new requirements of New York State as well, is a guidance requirement—that every school has to provide a guidance plan and file it with the state for approval. And as a part of the guidance at every school level, there has to be a career education component, and to show, even at the elementary level, how career education is being fused into the curriculum from kindergarten to the sixth grade in elementary school, seventh to ninth grades in the junior high schools, and then of course, in the high schools.

So that to take up the point that Dr. Marland made before, it is because of the quantity of the guidance counselors in the New York City school system since 1975, it is the teachers who are really the ones who are being relied upon to provide whatever counseling and career education is provided in the schools right now.

Whether it is accomplishing the aims that it is supposed toaccomplish, I believe that in light of the results that Mr. Marvin Weingart has spoken about, I don't think that they are quite measuring up to the task, but possibly with additional training, eventually they will have achieved that goal.

Dr. Marland

May I add a footnote to Dorothea's very important observation?

She used a word, which is a key word, at least in my belief, about the subject we're dealing with at this conference, "infused." Now I don't know the Japanese direct translation for that word, but it means subtly bringing into the regular classroom activities the meanings of vocational guidance and career planning—decision making, expectations, work experience-whatever the level of the child. This feature of teaching is "infused" into the other parts of learning. And her statement was a very profound observation about the meaning of what we're talking about here.

Dr. Hoyt has written two or three books on that subject. I was quoting him.

Dr. Hoyt

Let me clarify how I try to explain the concept of infusion to teachers.

It came up today in Ms. Kudo's report when they said some teachers said, "Back to basics. We now don't have time for career education."

The point I make on it is that we use the infusion of a careers emphasis in the classroom, that is, an explanation that you need to learn to read because people use reading in their work. That's what we mean by infusion; we show them this as a means of motivating them to learn the subject matter.

And here we are talking about the difference between a teacher and an instructor. An instructor can impart subject matter, but a teacher, in addition to imparting subject matter,

motivates the student to learn that subject matter. When we motivate the student to learn the subject matter through a careers emphasis, we call that infusion. Some people call that "weaving", "threading", but infusion is the term that we've tried to use.

Co-Chairman

Okay, thank you.

Dr. Pellerano.

Dr. Pellerano

Now allow me to briefly discuss the training of teachers in teachers' colleges in France. For some time, we have been making a variety of efforts in the area of training of teachers, particularly with regard to their lifetime education. The objective of this education is, after all, more than dissemination of knowledge but rather to let people better prepare themselves for life in the long range.

In other words, motivation is the key to the whole problem. In this sense, I suspect teachers today have forgotten the meaning of motivation. Motivation is the point of teaching but we can say teachers forget this when they teach things to young people.

Therefore, we have been encouraging teachers, thinking about what they can do together with children. This is how we have been exploring the possibility of education. I am convinced that teachers-regardless of what they teach-can, in some form or other, contribute to the enhancement of children's motivation to life if the teachers use everything at their disposal and fully use any single moment of teaching. Teachers can also help pupils and students know better about themselves and their social environment. These efforts will eventually help children increase their capability of choosing what job is best suitable for each of them.

In my view, vocational education is only one dimension of the perspective we have seen. Speaking of employment, it is absolutely necessary that individuals should give information and skills at each different level. But all these are preceded by a whole process of the perspective.

Co-Chairman

Thank you.

Do we have any other comments?

Dr. Nishida.

Dr. Nishida

It is very important for teachers to motivate the students. I would like to make some additional comments to what I said earlier. Thank you.

Now, why were there such differences between School A and B? School B is a small scale school with only 30 students in a class, which is close to the ideal form we see in Europe. Moreover, the curriculum at the school is organized so as to let the students experience actual work as much as possible, on the theory that work experience forms the basis of vocational guidance. I assume that this is one factor that caused the difference.

The large-scale school does also consider letting the students experience work in the same way, but teachers in fact cannot cope with the large number of students. Another point is the facilities and equipment. Both schools have about the same quantity equipment, despite their differences in size. The equipment for technical homemaking—I think this is called a labor course in the Soviet Union and industrial art or practical art in the United States,—is very limited in the large-scale school. Both schools have only one woodwork room. In such a situation, it is difficult to let the students experience many things. And because they have a large number of teachers, they have diverse views. Some teachers emphasize the main five subjects—the academic subjects such as physics and science, while others place importance on practical subjects such as art and practical art. So it is difficult to coordinate these different opinions. These factors can be considered.

The students who changed their career choice as they moved to higher grade show a small drop in the index. This is because many of the students who did change their choice did not react to vocational analysis. Let me present some of the numbers I have added up. 19 male students and 8 female students scored zero points on the item of "understanding" in the vocational analysis index. All female students except one have changed their career choice, which means that they lose hope as they go on to third grade in case of large-scale schools. This is a serious educational problem. Therefore, we should refrain from building huge schools with more than 2,000 students. I know that this entails a large budget, but the important task of the future educational administration is to create small-scale schools with 200 to 300 students and competent teach

ers. Thank you very much for your kind attention.

Co-Chairman

Thank you.

Okay, we have about fifteen minutes, so if you don't have any comments, maybe I could ask one or two questions.

Dr. Dupont, you have a comment?

Dr. Dupont

Only one remark.

Dr. Zenke shows us that with result of the F-Test in different cultures, we obtained similar profiles. In my opinion, this observation is very important. It will be useful to compare it also with other results in New York, Birmingham, in Japan, etc., and to adopt a comparative perspective.

Co-Chairman

Yes, that was one of the questions I wanted to ask Dr. Inaba. What is your interpretation? How should these scores be compared?

Dr. Inaba

You know, it looks like we're passing the buck, everybody.

Since in Japan a few universities receive all of the data from the different countries, I thought that at one point Ashiya University would take the lead in making a comparative study like you did many years ago. I think when the F-Test was first presented to Hawaii, they made a comparison of Hawaii, New York and the Japan school system.

So, I had hoped Ashiya University would take the leadership in doing some kind of a comparative analysis, now that we have more countries involved, in order to come out with some kind of analysis of the data.

If we had purview to the data, we would be happy to do that, too. The only time we can get the data is when we come to a conference like this.

And maybe I can ask Dr. Nishida if he has any plans of continuing that kind of a comparative study.

Co-Chairman

Dr. Nishida, would you comment on this?

Dr. Nishida

On the national scale, we are planning a survey targeted on 10 prefectures in the next fiscal year. We are also going to compile the data on international comparison. As Dr. Fukuyama has already accumulated data in this field, we look forward to announcing it.

Mr. Chairman, do you have any additional comments?

Co-Chairman

Do you have any comments on this subject, on the same subject? We have about ten minutes or so.

Mr. Weingart.

Mr. Weingart

I just have a question.

I was just wondering whether any of the other countries prior to the administration of the F-Test to the students, put teachers through the F-Test, ask the teachers to take it. Was that done anywhere?

Dr. Inaba

In our workshop we had to go through the F-Test, but I don't know if that would be similar to having a classroom take that test. But we did have our people go through the whole thing before they applied it to the students so that they could answer the questions more readily when asked.

Mr. Weingart

What do you think that the impact of the computerized version will be?

Dr. Inaba

I think the computerized version will have a great applicability and interest to both teachers, counselors, as well as students, because the results will be instantaneous, which is very different from having to wait about one or two weeks, or even a month before you get those results.

In this respect, I think it's really going to improve the instructional, as well as getting some of the assessment type of things we are looking for. But, I think that the thing that is most important to me is the instructional aspect. If the students can benefit from that, then I think the whole thing is worthwhile.

There are all kinds of ways to get assessment data to improve curriculum and what not, but I think the primary goal should be for the students, and I think this is where it's all at.

Co-Chairman

We have about five or six minutes.

Dr. Inaba

Can I make a comment?

Doing the implementation of the test, several things came out that were really enlightening to me, and one of the main ones that I saw was a big difference in the efforts of the sex equity movement in Hawaii.

Prior to our efforts in sex equity, in getting our curriculum and courses to become available to both females and males, we took a look at the examination scores, F-Test scores. Let me give you an example. Prior to our sex equity movement, or emphasis, the girls always responded, especially in the industrial categories, as having almost zero experiences, because they were not exposed to those kinds of experiences in the schools. And it reflected in the other school experiences. On the other hand, you take things like food preparation. The boys, prior to our sex equity emphasis, always reflected almost zero. Very few cooked their own meals and made things in the kitchen. And likewise, the outside experiences reflected the same thing.

But ever since we started our emphasis on sex equity, we have noticed that for the girls, industrial experiences, because they were required to take shop activities in schools, it reflected on the outside activities. They reported almost 80% or 90% of the girls experienced some kind of industrial experience outside of the school, which was interesting.

And the same thing with the boys. Prior to our movement, or emphasis, the boys reflected almost no food preparation type of activity. And once we started that, because they were introduced to home economics and what not as a required program, it reflected on their outside activities.

Now, there's another explanation for that. I think recently single parents have become more and more prevalent in our school systems, and many of the students, because they live in single-parent homes, are often required to prepare their own lunches and breakfast, and things like that.

But I thought that was an interesting aspect of how we could see some of our efforts in trying to implement a particular thing. And these are some of the kinds of things I think can be produced by looking at that kind of data from the F-Test, which was really interesting and eye-opening for us.

Co-Chairman

Thank you.

Before we wrap up the session for today, I'd like to ask Dr. Marland to make a brief comment.

Dr. Marland

I had one further comment.

You may remember, earlier this afternoon I drew an illustration from the test results in America for college admissions, college entrance examinations, in which I pointed out that at a certain stage in our development, minority children, namely black minority and Hispanic minority, performed consistently at a lower level than the Caucasian children. That was an incomplete statement, and I should correct it right now.

Interestingly, on those very same tests, minority children from the Japanese and Chinese nationality families performed just as well as the Caucasians, even in the first generation. And I think that that should be on the record.

Chairman

As today's universal theme is the F-Test, which I have devised, I would like to explian the original intent of this test. As I have said in the keynote speech, I believe that all men have some beliefs without which they cannot exist. For instance, when a child in kindergarten, a three year old, encounters something that he cannot deal with, a strong child reacts defiantly and a weak child starts crying. A strong child feels encouraged and a weak child smiles when they are faced with something they can succeed in. In seeing these realities, I feel assured that we all have some solid, fundamental conviction. I would like to say that we should start by discovering this conviction in each person. Many comments were made on the current pace of technological innovation in our society. As I was reflecting on them, I recalled an article in the newspaper about three months ago here in Japan. The accident occurred when a robot which was put in the stop position, started moving all of a sudden and killed one worker. As a result of the investigation, it was found to have been caused by electromagnetic waves and nothing else. So, we can see that technological advances have reached such a level that they can reached us. And our lives are filled with technology. What can we do without it? I would like to stress that we all need a conviction that we can depend on, a belief in the very fundamental things that we can do.

There were many talks on this matter. I am certain that we have to strive to discover this conviction ourselves rather than depending on others to give it to us. I wish to end here by expressing my gratitude for today's discussion on my test.

Thank you very much, ladies and gentlemen. We have just five more minutes. I would like to close the meeting if you have no more questions or comments.

Thank you very much.

(applause)

(NOV. 3)

SESSION Ⅳ

The Special Problems in Vocational Guidance Posed by Rapidly Advancing Technology

Chairman

Good morning ladies and gentlemen. This is the second day and we are going to have session Ⅳ. First we take up special problems in vocational guidance posed by rapidly advancing technology.

Co-Chairman

Dr. Christ-Janer, your presentation, please.

Dr. Arland F. Christ-Janer

Presentation (refer to pp. 119—124)

Dr. J. B. Dupont

Presentation (refer to pp. 125—135)

Dr. Kenneth B. Hoyt

Presentation (refer to pp. 136—144)

Dr. Lawrence A. Inaba

Presentation (refer to pp. 145—146)

Ms. Dorothea Z. Kuritzkes

Presentation (refer to pp. 147—150)

Dr. Jean Pellerano

Presentation (refer to pp. 151—153)

Dr. Hermann Röhrs

Presentation (refer to pp. 154—159)

Dr. Yu. G. Tatur

Presentation (refer to pp. 160—161)

Co-Chairman

Now I think we can start our discussions.

Thank you very much.

Prof. Ogasawara, would you like to comment?

Prof. Ogasawara

Thank you for allowing me to speak.

I would like to make some comments concerning Dr. Christ-Janer's presentation.

The situation arising in Japan is practically the same as that in America. The phenomenon arising in Japan is a phenomenon to do with information orientation. That is to say, micro computers are being incorporated into products; computers are being rapidly introduced into the production process, communication and business. Further, society is becoming information oriented and such information is being industrialized. This phenomenon is now occurring at an extremely fast pace.

Therefore, the number of information related technicians is inadequate and according to the estimates of the Ministry of International Trade and Industry (MITI), by 1990 there will be a shortage of 600,000 persons. Given this, even if enterprises go out looking for students with backgrounds in information, because of the fact that the universities are not producing that many graduates in this field, the enterprises will first have to train students other than those who have received an information-related education in computers and communications. What is more, they have to turn the mechanical engineers or electronics engineers they have at present, into computer and communications engineers. They are confronted with this kind of problem.

When it comes to the large corporations, they want to provide training for all their general staff with regard to information orientation.

Hence there is a great demand for computer and communication training in business and industry.

As Dr. Christ-Janer indicated, vocational guidance has a role to play in this field.

However, what is actually troubling enterprises now is that the investment in switching their training programs and education for brush-ups is increasing rapidly. At the same time,

it is difficult to get good instructors. MITI has this year taken the central information university plan and the regional information university plan out of the budget, and a move has begun towards the creation of organizations for training conversion or education for brush-ups in Japan's large cites.

At the same time, here in the Kansai district we have established the Human Resources Policy Committee of which I am the chairman. In order to accommodate information orientation, this committee is thinking about establishing schools, selecting good instructors from among university teachers and company specialists, and sharing these instructors among interested enterprises in the Kansai district.

Undoubtedly, one of the problems in our education system is that university education has become extremely specialized. For example, there is the computer engineer, there is the communications engineer, and there is the mechanical engineer. But one more problem is that there is nobody who can integrate the systems spanning these various disciplines. In our present society there are all kinds of information activities linking the two areas of computer and communications, yet the computer specialist does not know all that much about communications, and the communications engineer does not know about the computer. So there is a need for people who can integrate these two sectors and compose systems. I think that consideration must be given to this kind of training.

But when we do think about it, in Japan's university education this kind of education for integrators is only provided for at the music colleges. Should we not also include a few more different disciplines and create this kind of education for them? In this sense I also found what Dr. Pellerano had said very interesting. Thank you.

Co-Chairman

Dr. Christ-Janer, do you have any comment on this?

Dr. Christ-Janer

I'm very taken with the information society and the use of technology that you alluded to.

Recently in the U. S. a national technological university was set up thanks to the investment of large corporations.

It's located somewhere over in Colorado. This was set up by corporations, so that by using electronics and electronic mail, corporations conduct classes, which are video taped, and you can study in any time zone, at any time of the day or night, at weekends, and you receive academic credit for it.

Now this was set up by big business. And my point is, and I think that it's similar to yours, that this is one example of where you probably need some vocational guidance at a very high level going on in order to make certain that people are matched up properly with their own technological skills. And this doesn't seem to be the case at present.

The other thing you were talking about was the narrowness that this creates. And one of the great dangers in the corporate educational program is that the focus will be too narrow. When IBM and AT & T educate people, they're educating them for a particular slot. And again, there's that danger that this whole educational program involving some 9 to 10 million people does not have the benefit of guidance counselors, who can guide people so that they would direct their schooling more toward their own abilities.

But this is an exciting kind of new university, and what its impact will be, I don't know.

However, there's no campus, and those of us who feel that human contact is necessary for teaching and learning are a little concerned, as we don't know how we are going to handle this type of distance learning.

Co-Chairman

Dr. Marland, yesterday, you talked about the relationship between vocational guidance and higher education, right? So, if you have any comments about what Prof. Ogasawara said.

Dr. Marland

I guess I'm being asked to talk out of turn, which I'll gladly do.

Prof. Ogasawara's questions and comments and observations stimulated me to make a brief commentary on something that does relate to higher education. And, indeed, while I was not invited to prepare a paper on the subject of technology and vocational guidance in America, I do have some thoughts on the subject.

Indeed, most of the people who have prepared papers today, have dealt somewhat with the philosophical and public responsibilities of technological society as it affects schools and

learning.

I misunderstood the topic, because I thought those who were organizing the conference were looking for ways to utilize technology in conducting the affairs of education, and to improve the services to learners through technology. And in that context, I do have a little report to offer, in which I think there is a successful enterprise now in place in higher education.

It happens that I'm on the board of trustees of a college in Pennsylvania dedicated totally to the development of adult learners in the domain of life insurance, and getting certified as Chartered Financial Consultants. There are 40,000 students in this correspondence college. The college is a nerve center which for over forty years has conducted instructional programs to qualify American men and women as Chartered Life Insurance Agents and as Chartered Financial Consultants, an increasingly important occupation in America.

But all of this was done by sending out instructional material, which could conventionally be called a correspondence course. Examinations were sent to examination centers, where there would be a monitor at a given location, say an office building, students would come in at a given scheduled time, take their examination, the examinations would be sent back to the college in Pennsylvania, corrected over a period of perhaps two or three months, graded and sent back to the student. And ultimately after taking a number of courses and examinations, he or she would be qualified as a life insurance underwriter.

Well, in the last two years all of that has changed because of technology. Today, the students do, indeed, receive an extensive handbook of instruction. And now they have what is called "test on demand." And all they do is get on a computerized telephone system, hook into the college campus in Pennsylvania, take their examination on the computer system by telephone wire. It's instantly corrected electronically, and the student is given not only his grade and the correct answers, but he has an itemized analysis of the things that he got right and wrong and the kinds of things he should do to correct his mistakes the next time.

Most of these learners are mature men and women—thirty, forty, fifty, and older. Today, with this computerized instant examination system, its a totally different world. The learners are eager to learn, they're eager to take their examination on demand. They may fail it the first time—they'll come back two weeks later and take it on demand again.

In other words, this is an illustration, Dr. Kobayashi, of a higher education community which through a network of 40,000 learners is instantly in contact through technology, and—and I think this is quite important to underscore—providing what appears to be a high level of satisfaction on the part of the learner.

Co-Chairman

Thank you.

Dr. Pellerano, your presentation is related to Prof. Ogasawara's. Do you care to make any comments?

Dr. Pellerano

Let me refer to the problem briefly. We started installing information machines and equipment at schools about two years ago—from kindergarten to lycée. This is designed to help everyone get familiar with such machines and equipment. Microcomputers and other devices have been installed at a number of schools. They all use the machines in classes—pupils, students and teachers in primary and secondary education and even people around the school such as parents and parent-teacher association officials.

Professional engineers teach people how to use such machines. I think it is a great idea because this is helpful for all the people in a community in learning about new machines and equipment. This also makes them more open minded toward new technology and helps them understand it better. Getting familiar with new technology in this way is important because it has the possibility of changing the lives of all the people in a community.

Co-Chairman

Prof. Ogasawara, do you have any comment?

Prof. Ogasawara

With respect to what Dr. Pellerano has just stated I would just like to say a little about the situation in Japan.

The fact is that now, 6% of all Japan's elementary schools, 13% of junior high schools and 81% of senior high schools have at least one computer. When compared with the fact that it is practically 100% in France, Germany and America, and certainly close to 100% in the Soviet Union, it is very low. This July

the Ministry of Education and MITI established a foundation called the Computer Education Development Center. Here programs for education, that is to say computer active instruction programs—are being developed, and this has been inaugurated with the objective of training instructors to use and teach those programs at schools.

Dr. Kida

As was aptly indicated in Dr. Inaba's paper, it is inevitable that school teachers and school education are years behind the moves being made elsewhere in the world. As far as computers are concerned a lot of them are being used in companies, while practically no computers are being used in Japan's elementary and junior high schools.

At the conference held two years ago many of those present pointed out the importance of coping with the computer, and I said that there was no need to hurry. But what has happened in Japan is that schools still do not have computers, and because they constitute a large, untouched market, the various computer manufacturers are now working very actively to sell computers to schools.

However, up to now no thought has been given to the serious point of how computers can be used in schools. The people making computers tell us that the computer is used in business, but as yet almost no software for using computers at schools has been produced.

So the fact that the manufacturers are free to offer their machines to the schools is a problem. If a little more consideration is not given from the standpoint of the school teachers as to how to create software for use in school lessons, even if computers are sold to schools, and even if the teachers buy out of curiosity, they will not be able to use them. In order to deal with this problem, it was decided that MITI and the Ministry of Education should work together on software for use in education.

Earlier I referred to Dr. Inaba's paper, and I myself have had experience with respect to what schools can do when there is a considerable change in occupations as in the past. That was the case when the Japanese government's aim was to double Japan's income in the ten year period from 1960 to 1970. This policy was laid down in 1955. Japan had to be industrialized quickly and catch up with America and Europe. This huge plan was devised by Mr. Masato Ikeda, the Prime Minister at that time.

This was called income doubling in Japan, and in order to double the people's income it was necessary to train a lot of technicians and shift workers. So the Ministry of Education called for the establishment of more technical high schools, the enlargement of university technology departments and the creation of many more engineers. In the 1950s some 50% of school graduates entered the agricultural sector. This situation has rapidly changed due to the plan to train 170,000 university students as engineers and to increase the number of senior high school graduates in industry to 550,000 in the 10 year period from 1960-1970.

However, at the end of this 10 year period, the incomes of the Japanese people had increased more than 100%. Why this came about is that as the increase in the number of school graduates was still insufficient, 6,500,000 workers shifted from primary to secondary industries. These 6,500,000 workers moved from the farming villages to the factories; they left the country for the cities and were soon able to find employment in the newly developing industries. Today Japan is economically advanced in quite a variety of fields, and it can be said that the foundation for this was actually built during those ten years.

Today practically all young people can drive. In the future it will be necessary for practically everybody to be able to use the computer. Therefore, this will be more concerned with general ability than ability for a particular occupation.

As far as this problem of information is concerned, while it is a fact that the computer is important, it is necessary for us to turn our attention to the very great changes wrought by the information environment since the advent of the television and may be before that. There is a very marked difference between the amount of information obtained by children when there was no television and the amount obtained now through television and other information media.

The volume of information in society today is greater than it has ever been.

According to the statistics published by a certain government-related organization, the volume of information which people will obtain

through schools is coming to be less than 10%. They have come to obtain more information from television. If this is expressed in time, while a person in Japan obtains information from television for two and a half hours, he obtains it from school for a mere 30 minutes.

This shows that this type of information has more influence and is considerably more important than direct instruction.

Computer software has entered our lives, life at home, life at work, and life within society - all aspects are being touched by this age of information orientation. As Dr. Röhrs stated, if society is submerged completely in a mass of information, to what extent this information as a whole is healthy or ethical is a very important issue.

We are now faced with the problem of coping with information orientation both at school and in the community.

Mr. Weingart

The comment that I have has to do with Dr. Röhrs' presentation.

There's no doubt that we live in an information society. We heard speaker after speaker mention it, discuss it, allude to it. We all know we are under the impact of technology.

Dr. Röhrs, in his presentation, used a phrase which was rather vivid, rather cutting. He spoke of cruelty and murder setting the tone.

And that phrase brought to mind the fact that it's not new; no question about it. It brought to my mind, as a matter of fact, a book that was published about forty years ago by a psychiatrist in New York. The psychiatrist was Fredrick Wertheim; I remember I read it at the time and I've never forgotten it. He was chief psychiatrist for Bellevue. And the book he wrote was called 'The Show of Violence'. And what he did was to examine particularly horrendous crimes that had been committed. All crime is abhorrent, but these were terrible crimes—patricide, matricide, and so on. And in his analysis of these crimes, he tried to find out what led the people to these crimes.

He came to the conclusion that they were the result of the technology of that time-comic books. In 1948, 1949, pre-television, comics were influencing the perpetration of these crimes.

Co-Chairman

Thank you.

Mr. Hoxter.

Mr. Hoxter

This morning's theme is vocational guidance and technological advancement. And from the papers presented, it is quite clear that vocational guidance, as it used to be considered in the past, will be no longer relevant in the same way in the future.

Vocational guidance will have to change in order to be valid and effective in our changing society. And that will mean that vocational guidance in isolation will no longer be acceptable in most countries. Vocational guidance will have to be considered totally afresh in a new context.

Vocational guidance will form part of a whole series of professional activities, which will consist, of educational guidance, vocational guidance, and counseling. The selection and training of professional personnel, and the training of teachers at all levels will clearly have to be reviewed.

The major areas in which development may take place, are in the field of continuing education, and adult education, and this will bring about a new challenge for the educational counselor. It will mean a completely novel approach too, because these services will have to be provided in a flexible, mobile and highly adaptable way.

Dr. Christ-Janer referred to minorities. My organization, the International Round Table for the Advancement of Counseling, has provided two workshops, one last year, and one several years ago, on the counseling of ethnic minorities, and on multi-ethnic counseling. And this is an area which requires renewed activity and a perfectly new approach, because if we are not going to face up to the problems of these groups, we will be faced with major social and political upheavals. We will have to provide and adapt new services to meet the needs of these groups.

Ms. Kuritzkes

We have grappled in the New York City school system with the question of computerizing our schools, and we have come a long way. At the moment, every one of our high schools is equipped with a computer laboratory some of them having as few as seventeen stations, and some as many as thirty-three. Our junior high schools are in the process of being computerized now, and it is expected that this will be completed by next year. After that the

elementary schools will be computerized.

But at the same time, there is the problem that you mentioned before, and the question that we addressed somewhat yesterday namely cooperation between business and school.

The school system cannot maintain state-of-the-art equipment in its schools because of the cost and the rapid model changes. So, therefore, the school system needs the corporate world to assist it in helping to replace outdated equipment. As far as the utilization of the computers themselves goes, we have come a long way. At first, the question was having the youngsters understand how a computer functions, and the tendency was to teach them the basic computer languages. Now, we have come to the realization that the computer is a tool, and in the same way that a student wouldn't be expected to take a course in how to use a pencil in order to be able to use a pencil, nowadays a student need not understand how a computer works, but needs, in fact, to know how to use the computer in order to get access to information. And the computer does not become an end in itself; the most important issue is the ability to process the information that the computer makes available.

By using a computer a student can very quickly recall massive amounts of information that may have taken him/her student several weeks of searching through a library to acquire. Now in many of our high schools, as part of our applicational education programs and vocational programs, the students themselves are being taught how to maintain the computers, so that a whole new educational course has evolved to help, train students in the maintenance and repair of the equipment.

The major problem still remaining though, is the quality of the software. The software that is produced is still not fully appropriate and of sufficient high quality to be used in all subject areas. Great care has to be exercised, when teachers depend on a software package to transmit instruction, that the actual individualized instruction is not lost, the interaction between the teacher and the student has to be maintained.

On the other hand, the computer has been extremely helpful, particularly with our handicapped population. One out of every ten students in New York City's public schools has been evaluated and classified as handicapped. Computer assisted instruction has been enormously helpful in dealing with this group, especially in training for eventual positions in the job market, which are positions that they could never have held before.

Another way in which computers have helped us is in the instruction of the limited English proficiency student. One out of eleven students in our school system are limited English poficiency students—Students from all over the world who arrive in New York City and enter our school system with extremely limited English knowledge.

Dr. Christ-Janer

I'd like to come back to the vocational guidance issue.

It seems to me that, in light of some of the reports, certainly all of those from the United States, there was general agreement that, as we look at the workforce in the next ten years, most of the jobs are going to be in the area of service; that is, janitors, night watcher, all a whole category of service areas requiring no technological skills. So that presents one kind of challenge for the guidance counselor.

At the same time, the growing industry will be technology, but this is going to be for a very limited percentage of the population.

So I think our school systems, and also our guidance counselors, are kind of caught in a dilemma, where they have to meet both needs. But I would encourage us to think of the bulk of the people who are coming out of our schools. We need to have a very effective counseling system to get them placed rightly. And that is where tests, such as the Fukuyama Profile and others, can help us to direct those people.

This is clearly our problem: We talk technology, but most of our students coming out of the schools are not going to be in high-tech jobs.

That means it's a challenge to the guidance program, the whole of vocational guidance. It has to have at least two thrusts—one for this massive flow of people into service, industries where they don't need sophisticated skills. As a matter of fact we have them now in the hamburger fast food stores. They don't have numbers on the cash register, they have a picture of french fries, they have a picture of a mini-mac, or whatever you call them. They

don't even have to understand language anymore. That's where a lot of them are going to go to work, and we've got to keep in mind how we can meet their human needs, because they deserve our attention also.

Co-Chairman

Dr. Hoyt.

Dr. Hoyt

I didn't know that Dr. Christ-Janer was going to make those remarks, and my remarks are related.

I have a great need at this point to comment that I am extremely disappointed with our discussion this morning.

The topic that was announced was vocational guidance and technological advancement. That is not the topic that we have been talking about for the last hour and a half. We've been talking about computer assisted instruction and educational reform, and the use of the computer in the education system. That was not the topic that was announced for this session, and I just would like to go on record as saying I wish we would discuss the topic in question.

That is all.

Co-Chairman

Thank you for your suggestions, but we have some complications here, and you might get even angrier, but I have to call upon Dr. Fukuyama to present his views.

Chairman

We have just heard a very good speech from Dr. Christ-Janer. I shall reply to this. Perhaps you thought I had forgotten the essentials. Actually I haven't forgotten, I refrained so that we could get everybody's opinion. Right, I would now like to explain simply how we carry out vocational guidance at this school.

In this campus, on the left there is the university which has a graduate school. In the middle there is the junior college, and on the right there are the junior and senior high schools. Then there is the gymnasium and right in front of it you can see the kindergarten. Unfortunately we do not have an elementary school.

In the Japanese system elementary school is for 6 years, junior high school for 3 years, senior high school for 3 years and the university for 4 years. And at the graduate school a master's degree takes 2 years and a doctor's course 3 years on top of that. In the case of medical departments it takes longer.

With regard to vocational guidance at the kindergarten level, we keep records as to what the children like and what they dislike. The children enter the kindergarten at 3 years old and they stay there for 3 years. We check what the children like and what they dislike, and check on various aspects of their physical condition, their adaptability and that sort of thing. This does not mean that we employ tests at the kindergarten. When they graduate from Junior High School we employ the F-Test. Then at senior high school we get the students to think about which direction they had best take.

At the senior high school we have both a general course and an international culture course. The general course is the one that all schools have. The international culture course is in preparation for living abroad and living in an international environment. English, German, French and Russian are offered as second languages.

The F-Test is given in junior high school and, in accordance with it, a general outline of the child's vocational future made. In entering senior high school, either the general course or international course is recommended. In the general course half a day per week is given for dancing, badminton, wind-instruments, music, basketball, baton twirling, softball, table-tennis, tennis, volleyball, and athletics. Creative activities include handicrafts, cooking, fine-art, design, painting, calligraphy, VTR, drama and choral singing. Other activities offered are English conversation, English typing, personal computer, Japanese koto, naga-uta (singing accompanied by the shamisen), shamisen, tea ceremony, guitar, penmanship, and studying foreign countries. Through these activities the children discover for themselves what suits them.

When they finish senior high school the F-Test is given again. We accept everyone for the university or junior college. At present at the school level we have coeducation for the international culture course only.

There is the university and the women's junior college and the students choose which to go to. At the women's junior college there are courses in household management, English literature and infant education. As far as household management is concerned, we do not provide education merely for becoming a house-

wife. We have courses in Japanese music, western music, literary criticism, broadcasting, sewing, cooking, living arts, health and physical education and computer.

The university is coeducational. The women are practically all from our senior high school. The education course has training as its principle and is, strictly speaking, based on vocational guidance: Both education and culture are taught in the education course.

Next we have child education which involves studying how to educate children with the focus on the innate disposition.

The English language and English literature courses comprise training for those who will be active internationally.

In addition to these courses there is the industrial education course. The industrial education course could well constitute one of the solutions to the things we have been discussing this morning. If a person does not achieve about 70% in the university entrance exam, he is not accepted. In addition, we conduct staff interviews. I invite both the parents and the person in question and conduct the final interview. I ask clearly whether he has a sense of purpose and what he wants to do. Only those freshmen with a purpose enter, and after one year of university education they take my F-Test once more. Then, if mistakes have been made, they can change their courses for the second year.

The following comprises the industrial education course; enterprise management, trading, hotel management, hospital management, policy science, certified public accountancy, industrial management, computer science, electronic engineering, and automobile engineering.

Next there is integrated engineering, which comprises electrical, mechanical and life engineering. We also have a course on school management. Finally, there is teacher training. In particular, we provide training for technology teachers so they can teach technology at junior high schools.

On top of that we have the graduate school, where we provide master's and doctor's courses. It should be noted that our university is the only one in Japan where the graduate school offers lectures on vocational guidance.

Thus, we are endeavoring to put vocational guidance into practice. As a result the graduates will perform very positively in society, and on this note I wish to finish my explanation. Thank you.

Co-Chairman

Then, Dr. Röhrs, are you ready?

Dr. Röhrs

I explained that television is a very important instrument, and Dr. Kida told us that forty or sixty percent of information comes from television or radio. We have to try to use these media to meet our students' needs. This means we have sometimes to try to prepare our own films. I, myself, prepared for German television a series of three films about the school system in the Democratic Republic, and we tried to make these three films about kindergartens, middle schools, polytechnic education, and higher education. And they were each broadcast for thirty minutes. We tried to prepare them in a very interesting manner. Education must not be boring. It's an exciting task, and we are always saying that we are living in an educationally motivated society. Therefore, television, radio and other media must become a part of education in this society.

Dr. Kida

Concerning Dr. Hoyt's statement, I would like to ask a few questions about his paper. At the end he indicated 12 items, and I think these in themselves are very interesting. But I have one or two questions I would like to ask.

Firstly, item number 6: "Workers displaced by hightech will likely find alternative jobs to be lower paid than those they left." While there may be an extent to which this is pertinent, this can be read as, the more technological society becomes the lower the salaries will be. I would just like to ask what this means.

Then, item number 8: "Most jobs in the U. S. A. in the next 10 years will require no more than a high school education."

Dr. Hoyt

Let me respond as specifically as possible.

Point six. Workers displaced by high tech will likely find alternative jobs to be lower paid than those they left. I am referring specifically to the U. S. A. data on the concept of the displaced worker. There were workers in the automobile and steel industries, whose jobs were displaced by automation and robots, or whose jobs disappeared because of factory restructuring. In the last 2 years there were over half a million such people who were on a

relatively very high hourly wage. As a matter of fact, that is why robots and automation came in. Robots are not being used in the apparel industry, because workers are lower paid. The robots replace the workers when the robots can do the job as well at a lower cost, is really what it amounts to.

Point number 8. Most jobs in the U. S. A. over the next ten years will require no more than a high school education. There is a complicated answer to that. The exact quote is from the Occupational Outlook Handbook, 1986-87 edition, and says this: "Through the mid-1990s most jobs will become available as a result of replacement needs. Occupations with the most replacement openings generally are large, with low training requirements." "Between 1970 and 1984, employment of college graduates grew 127%. The proportion in professional, technical, managerial occupations declined because those occupations did not expand rapidly enough. As a result, one of five college graduates [1970 through 1984] took jobs not usually requiring a college degree. This over-supply of college graduates is likely to continue through the mid-1990s."

Now, that phenomenon is very real in the United States: people taking jobs at a lower level than the education that they have.

The point 1 made earlier, though, (point nine in my paper,) concerning a high correlation between the amount of education one has and the chances of finding a job should be borne in mind. Even if college graduates are over-qualified for the jobs they find, they can find employment much easier than, say, a high school graduate. So, education does give you greater assurance of finding employment, even though it is at a level lower than that for which you are trained.

I hope that answers your question.

Chairman

Thank you very much. As we have run a little over time and there will be more opportunities for questions.

With this, the morning session is concluded, and I would like to ask you to convene again at half past one. I would like all the panelists to stay behind for the commemoration photographs to be taken. After lunch, I would like you to have a look at how we conduct the industrial education course. Thank you very much indeed.

SESSION V

Vocational Guidance and the Aging Population

Chairman

Now the topic we are going to deal with this afternoon is vocational guidance and the aging population. The first speaker this afternoon is Dr. Hiroi.

I would like to call upon him.

Dr. Hajime Hiroi
Presentation (refer to pp. 167—169)

Mr. H. Z. Hoxter
Presentation (refer to pp. 170—172)

Dr. Hiroshi Kida
Presentation (refer to pp. 173—174)

Ms. Emiko I. Kudo
Presentation (refer to pp. 175—178)

Dr. S. P. Marland, Jr.
Presentation (refer to pp. 179—180)

Dr. Hermann Röhrs
Presentation (refer to pp. 181—185)

Mr. Marvin Weingart

Presentation (refer to pp. 186—188)

Co-Chairman

Then we take coffee break now.

——Intermission——

SESSION Ⅵ

Vocational Guidance and the Aging Population(Continued)

Co-Chairman

We'd like to start the session now.

I'd like to request you to make your questions short since time is limited.

So, shall we start our discussions on this subject, and on the previous one, which is vocational guidance and technical advancement?

We did not have enough time to explore all the aspects related to vocational guidance and technical advancement. Do you have any comments on these subjects?

Dr. Hoyt.

Dr. Hoyt

I would like to comment very briefly on the last discussion on the aging population.

As I listened to the discussion, I couldn't help but think about what is becoming a very common pattern in the United States in the field of career education; namely, using retired persons as role models, and as assistants to youths in career awareness, career exploration career planning, where the youngster can interact with the retired person, and say, "What is it really like to work in this kind of job?" And the retired person, having recently come from the company, can often get the kid into the company to look around, explore a little bit. And it's a very healthy thing for the retired person to do; it's a very positive thing for the youngster to do. They can afford to do it one-on-one, and the youngster can go from person to person and explore, at least in a career awareness sense.

I think it's a natural way of tying these topics together.

Whether it's paid or unpaid work, is really not the point, at least, not the way I look at it. I look at one's career as the totality of work one does in his or her total lifetime. Work, of course, can be paid, or unpaid. One's career begins prior to kindergarten, it continues through school—I mean, school is work—and it continues into the world of paid employment, and all the things you do in the productive use of leisure time. So, the retired person has not ended his or her career, it's just a different facet of career. I'd be interested in knowing if that is being done in Japan, or Europe or Russia.

Co-Chairman

Okay, Mr. Hoxter, would you like to answer? Is that done in your country?

Okay, Ms. Rangel.

Ms. Rangel

Yes, I might say that, in fact, we do tend to use, perhaps not retired people so much, but parents, for careers programs, to come in and talk. And we find this very effective, because they have a vested interest because their own children are in the school. And it's particularly helpful where you have pupils whose parents are in the professions that the youngsters are interested in. So, yes, I would say that we do tend to use our parents.

Co-Chairman

Okay, thank you.

How is it in your country, Dr. Pellerano, in France?

Dr. Pellerano

It is true that people, sometimes do that kind of thing. They provide young people with detailed information on the contents of their jobs and the setup of their workplaces. Retirees are also invited to talk about the process of how they have retired from work, their general job experiences, blunders and successes—a per-

sonal work history. This is now the thing young people find most difficult to understand. What does it mean to work for one's whole life? What changes and problems lie ahead? Retirees are invited to tell young people about all aspects of working life.

Besides these occasions, retirees have no opportunity to speak to young people.

They feel a bit awkward talking about their work history.

But once they dare to take a chance, it appears that they establish excellent contact with young people. I think it is a good experience for retirees, and young people alike.

Co-Chairman

Okay, thank you very much.

Dr. Dupont, I would like to ask you.

Dr. Dupont

We have no formal organization in this way, but have some experience. I think it is sometimes difficult to have good contact between youth and the older generation, especially regarding new jobs. The youth find, that perhaps, old people are not able to explain new jobs.

Dr. Hoyt

But they can explain the concept of work; and they can explain the concept of a career advance, and change in career, and they can get over with youngsters the notion of youth jobs. You see, most of the youths today are experiencing jobs like McDonalds and Wendy's and so forth, which are not real work. They are labor, but they are not work. And you don't get the joy of work out of those jobs, and the adults can do them.

And we can have youngsters go into the retired homes and do unpaid volunteer work, helpful to old people, and youngsters can understand the concept of work in terms of its personal fulfillment in their lives. And I think that can be helpful.

All of that's related to problems of aging and vocational guidance; it goes together, I think.

Co-Chairman

Do you have any comment on this?

Dr. Tatur, please.

Dr. Tatur

I totally agree with the people who spoke before me. In our country, the aged people are said to be particularly suited to vocational guidance. This is because in vocational guidance, you not only instruct the young people in careers, but also give training to them.

I would like to introduce here the plan in our country which has been undertaken by the government. Starting from the national level as the Soviet Union, the groups of people with rich experiences will be organized in various worksites, from the smallest units to the scale of a city.

Regarding the question of the Council, I cannot say for sure at this time what role the Council will assume, but it is evident that it will contribute greatly to the vocational guidance. Thank you very much.

Co-Chairman

So, let's find out the situation in the Federal Republic of Germany.

Dr. Röhrs

The situation in the Federal Republic of Germany is very similar to those already described in neighboring countries. There is no formal organization, but a lot of activities are going on. Elderly people are invited to schools to share their experience, not only in the fields of vocational guidance, but also to participate for their life experience.

I believe that we should as an international conference, suggest our ideas to the world public. I learned a lot during the discussion—for instance, to use the experience of the elderly. In other words, would it not be possible to release some statement in this direction, send if the governments, to the newspapers, and motivate discussions concerning these ideas?

I believe that would be very helpful. And then we could achieve real success for the conference.

Co-Chairman

Thank you. Regarding this aspect in Japan, I'd like to ask Dr. Hiroi to speak.

Could you comment on this, briefly?

Dr. Hiroi

I do not think we have a public organization, in particular where the elderly people offer various activities to the young, although there are some voluntary organizations. But I would like to comment on a separate issue regarding elderly people.

Co-Chairman

Thank you. Our time is quite short.

Mr. Hoxter, you wanted to speak, right?

Mr. Hoxter

Well, I only wanted to say that this kind of scheme of bringing retired people can be

operated rather well through different civic organizations.

And in the area, of which I used to be responsible, which was a working class area of London, there, in particular, young people had very little knowledge of the kind of work and careers which might be open to them, and which were never open to their parents, or grandparents. So it was a completely new experience to them to have any kind of educational or occupational choices.

So, we use civic organizations, like the Rotary and the Soroptomists, and other citizen organizations, and we' ve found them extremely helpful.

They started vocational committees, and people volunteered, representing a group of about 200 different occupations. So that we were able to present to the local region, the local area, evenings for parents and young people where we had these representatives all grouped within one building on a regular basis. And it proved to be very successful. So, I think this is something worth experimenting with.

Co-Chairman

Good, thank you.

Do these responses satisfy you?

Dr. Hoyt

Yes, that's very helpful.

I am especially interested in the Rotary Clubs, because that's the most common way we're doing it in the United States, as you know, one of the Rotary's four areas of service is vocation. And membership in Rotary is based on occupation. So, it's a very natural tie-in for a Rotary Club to take this on as a local service activity within a community.

I'm very interested, Dr. Hoxter, that you mentioned Rotary in the United Kingdom, because that's exactly what we're doing. Very interesting.

Co-Chairman

Okay, I am ready to entertain another specific question. The question has to be very specific regarding these two topics.

Okay, Dr. Christ-Janer.

Dr. Christ-Janer

This will be a question of information, again directed towards Dr. Hoyt.

Recently, the Carnegie Corporation established a forum on education and the economy. And I gather that the attempt of this group is to try to determine what jobs are going to be available, what the employment needs are in the long term future.

Are you familiar with that?

Dr. Hoyt

I've seen some of their work. Yes, I know the task force.

Dr. Christ-Janer

It would seem to me that that's a kind of tip-off to those of us involved in vocational guidance, that if they are beginning to develop the kinds of positions on the kinds of employment that we're going to have, and they're going to spend a lot of time, effort and money on this, we ought to pay attention to it, because it would help us in our vocational guidance effort.

Dr. Hoyt

I think one of the significant activities is their task force on education and the change in economy. They are recognizing the very close role that education plays in the economic development of any country. That's the Carnegie pitch right now, and I think it's most significant, and most worthwhile, especially with the money that the Carnegie Corporation has, because they can make something really happen with their dollars.

Co-Chairman

And when is that report going to be released? Do you have any idea?

Dr. Hoyt

It goes in phases; some phases have been released already. I could get you information.

Co-Chairman

Yes, I would appreciate it very much.

Is there any similar endeavor undertaken in your countries, for instance, in France, Dr. Pellerano? Are you familiar with this?

Dr. Pellerano

We have association with the business community and trade unions. These organizations offer opportunities such as work experience days and job training for students.

Students are also given opportunities to talk with people already working. Meetings of representatives from the business community, and labor and educational circles are also arranged. All these activities are conducted under the initiative of this orientation service.

Co-Chairman

Dr. Zenke.

Dr. Zenke

Maybe it's a special situation in West Ger-

many, but I think it's a very interesting development; we have in one of our districts an organizations that's an organization of elderly people by itself. This organisation tries to find new forms of social integration, and they try to formulate the interests of the retired. They speak to politicians and social organizations, and so on, and find new waysof worthwhile lifestyles for the retired.

This organization tries to go to other social groups in our society to speak about the problems of elderly people. They make films and hold symposiums, and so on—open discussions.

I think that it is very interesting to see that the elderly people, by themselves, try to find new ways of explicating their own interest.

In Germany, this organization is very new.

Co-Chairman

Okay, thank you.

Dr. Marland.

Dr. Marland

I've been stimulated to remember an anecdotal description that may add to the color of this conversation that we're now having.

Years ago I was superintendent of schools in a relatively small community near Chicago, Illinois—a very favored community, in that it had virtually unlimited resources in terms of staff, money, facilities, and so on. One of the things, however, to which we did not have a good solution was the discovery and the services to gifted children.

Now, I think this is true throughout the United States. We know there are gifted children. I'm sure there are gifted children in Hawaii; there are gifted children in New York; there are gifted children in Tokyo; there are gifted children in Ashiya. We can identify them, partly by teacher judgement, partly by tests and examinations, and we're all conscious of them. But, what to do about them? We talk about enrichment in the classroom; we talk about additional opportunities; we talk about extra assignments to increase the level of their academic reach.

In addition to all these things, we identified about 200 children that, in one way or another, we felt were gifted in those schools: gifted in art, gifted in music, gifted in leadership, gifted in composition, gifted in foreign language, and so on. We identified a corresponding number of retired people in that community who had similar interests, and those elderly people were matched with a given youngster for one day a week. Those children could easily escape the classroom for one day a week because they were way ahead of their peers in conventional classroom learning. For one day a week, that pair—let's say a woman newspaper reporter, retired from the Chicago Tribune, was matched up with a young man at grade six who was a very effective writer in terms of a sixth grader. They'd spend the day together. They would have lunch together; they would take trips together; they would go to the newspaper together. I don't think I've ever seen such an outpouring of enthusiasm back to me, as superintendent of schools, as I've had from those elderly citizens, who suddenly found that they were useful to somebody. They had a wonderful time with this. The relationship is still going on after all these years. That was back in the middle of the 50's, thirty years ago.

As the older people have died off, others have been identified to take their places. As the children have graduated, of course, others have come along, and the system is now in place; and it works.

The key point I'm making, those of us who are wondering what to do with the gifted children, we have gifted adults all over the place—elders, retired. All you have to do is match them up.

Co-Chairman

Okay, thank you.

Ms. Kuritzkes

The same system you used in Illinois, Dr. Marland, we are using with retired people in New York City, but to work with those students or children who need extra help, on a one-to-one basis. There is a whole cadre of older people who are retired, who have the time, who have been trained, who come into the schools and work with students who have difficulty learning to read, who need socialization skills, or who just need this individual to come in and become a role model, a caring individual to spend time with this youngster. The retired people also help with students who have limited English proficiency, and there is also a home entering program where they come in, as Dr. Hoyt said, to serve as role models in different career sectors.

Co-Chairman

Yes, these two are related with the aging

subject. We were talking about occupational projections.

Do you have any other comments on this?

We should not deviate from one topic, otherwise it's going to be quite difficult.

Mr. Weingart

I have a question.

Co-Chairman

On this topic?

Mr. Weingart

On the aging.

Co-Chairman

Could you formulate it in a question?

Mr. Weingart

Yes, I will try.

Co-Chairman

We are on the aging population, and also on vocation guidance and technical advance, and Dr. Hoyt was talking about occupational projections. So, I thought that we were going to adhere to that topic.

So, now we are changing our topic. Could you phrase your statement in the form of a question, then we can carry on from there.

Mr. Weingart

I'd be happy to do so.

This is addressed to any of my Japanese colleagues here.

I'm interested in what happens in Japan. On September 5, 1986, the New York Times had an article dealing with the Japanese elderly—I happen to have a copy of it here. And the problems are very similar to the problems that we have discussed, that occur in the United States and elsewhere in the world.

However, in the United States, a number of us have mentioned early retirement incentives from corporations and even states—for example, I have an article here, the state of Alaska is offering an incentive to government workers to retire earlier to save money.

In Japan, are incentives offered to the elderly to retire earlier? They may not be elderly, but they want early retirement.

Co-Chairman

Who is going to respond to this?

Prof. Ogasawara

I don't have knowledge of all the details, but from my experience in the prefectural office, they generally pay additional retirement allowance as an incentive for early retirement. So, if they retire before the retirement age, the rate of retirement allowance would be higher than usual.

Co-Chairman

Okay, thank you.

Dr. Hiroi.

Dr. Hiroi

In addition to the method of additional retirement allowance compensation to promote early retirement, which was just mentioned, they prepare many career courses which employees at about 45 years of age can choose from. One choice would be to retire with, say, double the retirement allowance. Another course would be a guarantee of a certain position in the organization, although top management positions are not included. Others would be transferred to related companies. Also, some companies have a career counseling system for those seeking new jobs.

Co-Chairman

Thank you.

Do you have any other questions?

Ms. Kudo. On which topic are you going to talk?

Co-Chairman

Okay, thank you.

Ms. Kudo

We know that the population of the elderly continues to grow, and life expectancy increases. We've already established that. And we know for a fact, after we look at the demographics, one out of seven Americans currently needs some type of home care assistance, and health care will be coming back into the home. That's the trend now, more and more.

Home care is not only for the elderly, however, it could be for children as well. And in 1985, the home health industry in the United States had revenues of 7.5 billion, and it will be 9.8 billion in 1986, so that the opportunities are going to be there. And the adults that are retiring early, or the adults retiring at retirement age, certainly are still very healthy, and can go into that kind of industry, very profitably, for themselves, as well as those that they are going to care for.

So, health care is going to be cheaper in the home, rather than hospitalization or institutionalization, anyway. I think that's going to be saving a lot of money, plus giving older people a feeling of being important, needed, offering something to somebody else. They may have some economic gains, they may not. It doesn't matter. But, they're going to be

fulfilled by contributing their share to others as well as themselves.

I have some tidbits here that might give us some idea as to what it means for comparable hospital care.

Now, to give a child who needs a respirator, for instance, care in a hospital would cost about $250,000, whereas if we had it in the home, the same care could be given between $30,000 and $40,000 a year.

So, I think that's something we ought to be thinking about. And technology has certainly given us a miniaturization of equipment that can be used in the home for care of those that are sick, not for acute care, but for long-term care in the home. It's already going on. What I'm saying is people who retire early can be retrained or counseled to go into that kind of occupation. I have a lot of instances where we could do that, but there's child care, of course, there's recreation things, and so forth. All the way through.

Co-Chairman

Ms. Rangel.

Ms. Rangel

Still on the question of aging and using our older members of society productively, I think we've all been talking about continuing to give them, or to allow them to maintain a useful identity and a contribution to society.

But, it occurs to me that at the same time we have a growing problem of unemployment. I'd be interested to know what people think about the conflicts that this would create in using older people, where the argument might be that we ought to be using younger people who need full-time jobs.

Co-Chairman

Okay, thank you.

Dr. Christ-Janer.

Dr. Christ-Janer

Well, I'm not going to answer that question, but I think it's a very good question.

When I raised my hand I wanted to make the point that we're talking about the aging population and technology in terms of the aging population of the very elderly. The aging population could be also somebody who is thirty-five years of age, who has been replaced by a robot, or whose job has been eliminated, and this aged person now has to find some new kind of full-time employment. And we do need to be very concerned about the guidance backup that helps that person search.

I'm impressed that in the recent strike with AT&T, when they settled their contract, it was stipulated that anybody who works for AT&T who is replaced by automation is guaranteed job retraining by AT&T. And I think this will come along more and more in labor contracts.

But, it's one thing to guarantee the job, and another thing to wonder if they get the right job, one that they're suited for and that they have the aptitude for.

I guess I come back to an earlier point that we need to have a strong interface with business and industry as they attempt to educate and reeducate their workers. But they're probably doing it without the skills of professionally-trained people in vocational guidance and counseling.

Co-Chairman

Just a second.

Dr. Röhrs, do you want to speak, too?

Just a second, I'd like to establish an order here.

Dr. Christ-Janer has just finished his comment, so now I have to call upon Dr. Zenke.

Dr. Zenke

My comment is to Ms. Rangel.

In Germany, we discuss the same problem. We have great unemployment, and on the other side we have the problem of further jobs for the elderly people.

One idea discussed in Federal Republic of Germany is to find unpaid jobs for the elderly people in social fields, for instance in welfare organizations, or schools, or in other centers of social work. Unpaid means what is necessary—I believe the state has to pay, but they have no job in a firm. In some cities of Federal Republic of Germany we have some projects; they've tried to develop such organizations for unpaid jobs for the elderly.

Co-Chairman

Okay, thank you.

Dr. Hoyt.

Dr. Hoyt

I would like to respond very briefly to Ms. Rangel's question.

I find a trend in the United States, and I don't know if it exists in all other countries or not. With our youth populations declining, youth jobs, particularly in service industries, continue to increase in numbers. That is, jobs

for example, like working in McDonalds Hamburgers, or working in any fast foods restaurant. These jobs are on the increase—low-level dead-end, jobs that do not lead to a typical career advancement and upward mobility, simply jobs that people take because they need a little extra money for a while, and they're not really a firm career choice—those jobs are rising in our emerging service, information-oriended society. The young people who used to take those youth jobs, prior to going into some career permanently, are decreasing in number. We find a lot of retired persons now, who need the money, working at McDonalds, working at Burger King. And they are doing very well. They come to work on time, they do what they are told, they finish their task, they do the best they can—all of the qualities that the managers of the fast food restaurant look for—the older people are able to do. And some of these older people do it because they very badly need the money.

I'd like to talk about unpaid work for retired persons, but we cannot do that for all retired persons. There are many retired persons, and a growing number, who need some paid job.

The big problem that I see—the big problem in the United States is not finding enough paid employment for both young workers and older workers who are our citizens, but it's finding enough employment for all of them when we have the problem of illegal immigrants coming in at one million, two million a year, who are going into many of these jobs at cut-rate wages. This is a problem we face that I'm sure many places don't face, but it's certainly true in the United States.

Co-Chairman

Thank you.

Mr. Weingart.

Mr. Weingart

Just a very brief comment on what Dr. Hoyt mentioned.

I suspect the proliferation of jobs in these fast foods enterprises is really because they are economically beneficial to the owners of these enterprises—these are part-time workers. When you hire a part-time worker, you don't have to pay any benefits, you have no health benefits, you don't have to worry about their long-term career aspirations, and so on.

I also suspect, though I certainly have no figures, that there used to be, before there were these Burger Kings and McDonalds, other jobs that youngsters used to take. There were delivery boys from the grocery store—I don't see them anymore—newspaper delivery boys, and so on. I remember that during my growing up, every kid had a little type of job. So, then I suspect that they've always been in existence, they just have been transformed somewhat.

However, to get to our real topic, the elderly want some work, they've retired, they have a retirement income, they need the economic benefit, the economic stimulus of additional income. Now, it may be possible for a government, not necessarily to give them additional income, but to have them provide a special type of service, a part-time service, in some of the social services operated by the government, where the elderly get some benefits out of that that are not necessarily additional money. It might even be some sort of reduced taxation; they give it to business. If a business will set up a new plant, they will reduce taxation on the business. If we have to provide, or we feel an obligation—as I think most of us do—to provide some type of occupational employment for the elderly, part-time, and there are no occupations available funded by private enterprise, perhaps the government can step in by offering some other type of benefit, heretofore we haven't considered.

Co-Chairman

Thank you.

Prof. Ogasawara.

Prof. Ogasawara

Thank you. Now, I wish to respond to the questions of Ms. Rangel and Dr. Christ-Janer's comments.

Let me cite one example. In Hyogo Prefecture, they have a personnel bank called an animator bank, where purpose for talented, elderly people and life-on-education in the rural region, are combined. In this system, the bank sends lecturers, when they receive requests to give certain talks or teach on certain topics.

Regarding Dr. Christ-Janer's education for transfer of employees of structurally depressed industries, I think this is quite different between large-scale and medium or small-scale companies. In the case of large companies, they offer in-house training on transfers. Many large companies establish subsidiaries. These days, we see huge cutbacks in steel and ship-

building industries. They do not just lay off workers but establish subsidiary companies, like system engineering companies, or a software company that would utilize the shipbuilding technology they have been using. The employees can continue working elsewhere by adapting through transfer education.

In the case of medium/small companies, on the other hand, they have no capacity to give such education inside the company. In such cases, they look to vocational training schools run by the Ministry of Labor or local municipalities, mainly the prefectures. The vocational training schools built in the region that has many structurally depressed industries supply transfer training services for the employees on a national or prefectural basis.

Co-Chairman

Thank you.

Dr. Hiroi.

Dr. Hiroi

As regards finding employment and jobs for elderly people, this is done by the government in public employment services. But the rate of people who actually get a job is very low.

Also, there is a separate tax collection division for elderly people. I myself am included in this category, but, I think many people would rather not be included here.

I believe that such public services for the elderly people and promoting them to undertake volunteer activities are very significant measures. One more point we have to consider on the part of the elderly people is that they have extremely low ability to select their career. I think we should pay more attention to this point.

The people who are in old age now have not received sufficient vocational guidance nor studied the decision-making process when they were young. Because they were engaged in one profession for a very long time, they have lost to a large degree a flexible way of thinking.

So, when these people reach the age of 50 or 60, they face a vocational crisis. The greatest difficulty here is caused by their lack of or shortage of ability to select careers.

It is indeed important to supply various public services, but we should also take measures to develop the career selection ability of the elderly. To this end, we can develop the Fukuyama Profile for elderly or middle-aged people, and particularly for elderly people in Japan, as Mr. Weingart presented earlier. And we should consider spreading it to many countries in the world. I heard this is already done in New York.

We should also establish a new scheme for the development of career selection ability for the elderly based on the findings. Thank you very much.

Co-Chairman

Okay, then Ms. Kudo.

Ms. Kudo

I just wanted to make two comments.

When we were talking in terms of the retirees and giving them something in the way of guidance so that they could be fulfilled in an activity that they could enjoy, both for economic gains, if necessary, or non-economic gains, I don't think we meant to displace people who already have jobs—we didn't want to raise unemployment rates.

On the other hand, we had no thought of displaced workers whose industry was folding, or whose agriculture project or farm was closing up resulting in their replacement. The adults, or the retirees that I'm talking about are not going to compete with displaced workers who have lost jobs. That is another big problem that many countries and communities are facing, and I think they have to face, independent of the retirees that we're trying to help. Most of the retirees that I'm thinking about, in terms of placing them into economic gaining projects or non-economic gaining projects, I am thinking about in terms of volunteer work, helping themselves being fulfilled, by helping others, mostly in family situations, or in community situations. It could be for free; it doesn't have to take somebody else's job.

Co-Chairman

Okay, thank you.

Dr. Röhrs.

Dr. Röhrs

I would put a question which may be of a certain importance in the context of this discussion.

In 1977, an act was passed under the government of Carter in the United States, the so-called age discrimination employment act. And I believe that it is a cornerstone. It's a type of emancipation of the elderly, because it says that nobody is obliged to retire before 70

years.

And my question is, which experience did you win in the context of this act? Are there modifications in this field? It is a fact, and we have to think over the situation.

Dr. Christ-Janer

Well, actually, just last week President Reagan signed a bill eliminating 70. So now, there is no upper limit at all, with the exception of certain special categories, and there are a few: police, firemen and college professors. But other than police, firemen and college professors on tenure, then there's no limitation now, and nobody can be forced to retire. So it's an extension of that.

Co-Chairman

And Dr. Nishida.

Dr. Nishida

Thank you. In Ms. Kudo's speech, she referred to the F-Test conducted on elderly people. Is this the F-Test for Junior and Senior High School Graduates?

Could you also cite some concrete examples of what occupations the elderly people have chosen as a result of the test?

Co-Chairman

Ms. Kudo, do you want to speak?

Ms. Kudo

Well, I'll just respond to his question.

I don't have the answers. Like I said before in my presentation, I didn't have the time to analyze it thoroughly.

However, in working with a test, where you call for seventh, eighth and ninth graders—I asked these senior citizens to say 1984, 1985, 1986 and pigeon-hole it according those years in the last three years of their lives. It was very interesting how they reacted to it. I have two theories: Either they had really good guidance, vocational guidance, in their fifty years ago schooling, or they were doing their answers on the basis of their most familiar experiences, regardless of whether it was '84, '85 or '86. So it came out that 88% of them said they would be best qualified to do button sewing, and the button sewing was exactly what they left five years ago, three years ago, or ten years ago in terms of their life-long career. So, it was very interesting to me.

But, that's the extent of the analysis that I've done up to this point. Dr. Nishida, I'll have further answers later.

Dr. Nishida

Thank you very much. I hope so.

Co-Chairman

Okay, thank you.

Dr. Christ-Janer. You don't have any comments?

Okay, then I'd like to ask Mr. Weingart.

Mr. Weingart

The only brief comment I wanted to make was I think that Dr. Nishida's question is very pointed and very pertinent. That's one of the factors that I have been considering.

I think use of the F-Test for the elderly can be an important stepping-stone, can be an opening of a new gate, a new portal. However, I also think that certain revisions are also going to be absolutely needed, because when you're dealing with the elderly, to go back three years may be totally insignificant. There may be no point to having time. Have you ever had any of these experiences? How well have you done?

I mean, the whole test is going to have to be looked at and remodeled somewhat. The basic concept is sound, but I think there will have to be some revisions made.

Co-Chairman

Thank you.

Dr. Zenke.

Dr. Zenke

From what I see, we have no instrument for assisting the elderly in the situation of looking for a new job.

In the Federal Republic of Germany, we have no instruments. I think the philosophy of the F-Test is a correct one, because it may help the elderly to reflect and discuss all occupations they try out. Therefore, I would analyze the aim to develop a form of the F-Test for assisting the elderly in this special situation.

But, on the other hand, first there must be job possibilities for the elderly. These are two issues we have to reflect upon together—the instruments and the political decisions to find new possibilities for the elderly.

Co-Chairman

Thank you.

Dr. Pellerano.

Dr. Pellerano

We have a similar problem in France. Such a vocational guidance service is available for the general public, including old people, who do not actually want professional guidance in

the strict sense of the word. Unlike young people and those out of work, though they are still of working age, old people do not necessarily come to find jobs or get employed. But, rather, they come to search for a brighter prospect in life. They are seeking advice on how they should live. This is a major factor in the guidance service for old people.

Therefore, we deal with old people differently from young people both in terms of tools and actual relations at professional levels. It is certain that old and young people do not face the same problems. This means we have to acquire knowledge necessary for the guidance of old people. We also have to do research on the problem. I think we are still relatively ignorant of the situation the old people are facing. At present, we are giving guidance to old people only on the basis of experience. I believe a lot of improvement should be made with respect to the professional knowledge required of counselors in giving guidance.

Co-Chairman

Okay, thank you.

Ms. Kuritzkes.

Ms. Kuritzkes

Yes, I would like to mention another aspect of the way in which the New York City school system is reaching out to retired people to help within the school system.

I mentioned before about reaching out to retired people to come and work as volunteers for children.

But, in fact, there's a tremendous shortage of teaching staff now in the school system, particularly in the industrial arts areas and vocational areas. In order to make up for this lack, the system is reaching out into the ranks of the retired workers who can come back into the school system—who have never been teachers before and who, with a certain amount of minimal training, can come back and be teachers, or be vocational subjects. In addition, many retired teachers have been asked to come back into the school system to help assist, on a part-time basis, new teachers in the school system to become more proficient.

So, this is a very significant factor in New York City now, where the school system is reaching into the ranks of retired people of all kinds in order to bring them back as teachers of mathematics, teachers of science—people who have been in engineering fields or have worked with sciences in some form. Even retired teachers are being brought back as mentors to new teachers.

Co-Chairman

Ms. Kudo.

Ms. Kudo

I want to comment in response to Dr. Pellerano.

His point is very well taken. I don't think we can assume that the retirees are looking for and want training for another job. That's why I said I defined vocational guidance for the senior citizens inclusively by saying we will help them with guidance and education so that they can select activities to give them more satisfaction, not necessarily to train them for another job. I agree with you whole-heartedly that they may not be looking for another job to train for.

Co-Chairman

Dr. Inaba.

Dr. Inaba

Yes, I just want to enlighten Mr. Weingart, his plea to have the F-Test converted for use with adults. I think Dr. Fukuyama already saw that need, and he already developed a form that will, or can, be used for the adults.

Mr. Weingart

I noticed that it was in the 1982 conference Dr. Fukuyama mentioned that that was in progress. I would love to see it.

Co-Chairman

Thank you.

Dr. Hoyt.

Dr. Hoyt

I want to come back to Ms. Kudo's point that not all elderly people are looking for jobs—correct. But I would contend that all elderly people are looking for work. When we talk about the concept of work, we are talking about one of the very few universal concepts, universal needs, that apply to all persons. This is a need of all human beings: the need to do, the need to achieve, the need to be someone, the need to know that someone is needed. It's important to exist, and it will be important to exist tomorrow.

That human need to work extends from a very youthful age to well into the retirement years. It is when that need is not met that the retired person, I think, tends to die more quickly. The retired person is kept alive by having the human need for work met, and I

think that is what we mean when we talk about career development over the life span.

Co-Chairman

Dr. Kida.

Dr. Kida

As Dr. Hoyt just said, I agree that our life would be meaningless without work, and that we have to continue working to have a purpose in life. However, in socioeconomic terms, we cannot afford to have people over 60 not working, this is because people in the workforce will have to support more elderly people to pay their pensions. The pension is paid from the salary of those currently working. So, when the elderly population of over 60 comes to occupy a large proportion of the population, it will become impossible in many countries for workers to pay all their pension.

When we view this point from a socioeconomic perspective, the society can no longer continue to function, unless the elderly people work as long as they can to lessen the burden of the younger people to pay their pension. We believe that this is the society we will face in the coming century.

Co-Chairman

Okay, Dr. Christ-Janer.

Dr. Christ-Janer

Yes, in the United States, under Social Security, you can take it at sixty-five or earlier, but if you work until sixty-eight, then you're rewarded by getting more when you do retire. So, there is this incentive to encourage you to work until at least age seventy, because when you get your retirement, you get that much more than if you collected it at sixty-five, because you are also earning those years.

Next, those are likely to be your highest earning years. So, then you eliminate your lower earning years, and you really get quite some additional benefits because you work longer. That's one way to address the problem that you have mentioned.

Co-Chairman

Ms. Kuritzkes.

Ms. Kuritzkes

I would be interested in knowing what the problems of the aged population and the retired population might be in Russia.

Co-Chairman

Dr. Tatur.

Did you understand the question?

Could you repeat your question?

Dr. Tatur

In our country we also face the problem that Dr. Hoyt has pointed out. That is, you need to realize that your existence is important for other people, even when you get older. So, it is necessary that we continue to work for the sake of self-respect and not for bread alone in the advanced years. Just as you have been respected by others, you need to have a long-lasting respect for yourself.

We have no solution to this problem in our country. I mentioned earlier about the veteran counselor who had worked in various fields. As you are aware, our country is composed of many races. We have seen this trend in Gruziya, Azerbaidzhan and Central Asia from the past, before the Revolution.

The old people have much to be concerned about and are responsible for their locality. I do not mean that old people give orders to young people or that they become leaders of any sort. The elders and the young cooperate. I think Dr. Marland has said that people take better care of children as they get older, which is just fine.

Here, I recalled this fantastic novel. It says that the elderly people take charge of educating young people in the society. More important, the serious problem in our country is the lonely old people whom no one looks after. They are very lonely, and they are very much afraid of the loneliness.

We have two measures for this in our country. The first is the children's volunteer groups that are organized for the purpose of aiding those who lost their families in the war. The teachers in these schools know where to find these people who need help, and the children in the class visit the people. I cannot say that this has solved the problem, as we are still considering the solution. Thank you very much.

Co-Chairman

Thank you.

Dr. Nishida.

Dr. Nishida

Some mentioned that the wisdom of the old people should be utilized for young people rather than letting them relax in retirement with a pension. I think this is very important. Young people in general are eager to display their own ability so as to realize their goals. After they are engrossed in their own affairs,

they tend to neglect the welfare of others. The elderly people in contrast have gotten over that stage: they think about others rather than themselves. I believe that the role of the older generation is very important in view of this kind of morality.

Here I recall "The Republic" by Plato, and this is also in the vocational guidance research department of Dr. Fukuyama. Plato said, "The medicine does not consider the interest of the medicine, but the interest of the body... Nor does the art of horsemanship consider the interest of the art of horsemanship, but the interest of the horse. Then I continued, no physician, in so far as he is a physician, considers this own good in what he prescribes, but the good of his patient; for the true physician is also a ruler having the human body as a subject, and is not a mere money maker."

This, to me, is truly impressive, and elderly people are aware of this truth. I have heard yesterday that as labor unions become strong, the index on the F-Test goes down. For what does the teachers' occupation exist? It should not be solely for earning a living. The teachers are there for the young people who look to the future.

In this sense, retired teachers can give guidance to young teachers. I believe that it is time for the elderly people to play active roles. Thank you very much.

Co-Chairman

Thank you.

Do you have any other comments, Dr. Inaba?

Dr. Inaba

I would like to get back to the technology issue.

This afternoon, Dr. Kida made some remarks about what I had said in my presentation, and I just wanted to clarify that basically what I stated, as far as the schools being behind about five or eight years, was meant for those technical schools. Of course, education itself, I still feel that we're behind in the use of technological advancements, but the technical schools in particular are in real trouble.

Let me provide a sample of what I'm trying to say and comment on the remarks of Prof. Ogasawara about specialization and the need for somebody to coordinate everything...

Recently, I was fortunate in attending a workshop of the National Association of Body and Fender Repair people. These are the people who repair the dents on cars. And what they had presented to most of the audience was eye-opening, especially for the instructors. Up till now, people in body fender work usually teach their students how to repair a body. In the old days, the car was made so you can repair only a fender, but today the car is made as one. So, anytime you get into an accident, you cannot only look at the fender or the dent and repair that and feel satisfied, you have to look at the total car. So, now the name of the association has been changed to Collision Repair, and the body and fender person is going to disappear.

So, it's not only in the high-technology area that you're going to need coordination. I think that even for those regular jobs, the lower status occupations like body and fender, you do have this kind of a problem.

The computer is becoming a vital part of the car now affecting fenders, etc. So, you need a specialist, who can understand what the computer does for the car, who can fix or diagnose what happens.

When you get into an accident, and things like that... So, it's really becoming critical that the instructors keep up with these kinds of changes. Otherwise, the students are not going to beadequately prepared. That's the message that I wanted to bring home.

Co-Chairman

Thank you.

Dr. Kida.

Dr. Kida

The situation that has been pointed out can also be seen in Japan. To cite a familiar example, you cannot repair a car today by an outdated technique—even if you have worked as an automobile mechanic before—in this age where computers are used everywhere. You have to send the car back to the manufacturer once it is damaged.

If we look back to the time when we were young, we could manufacture a radio set or initial TV models by ourselves. Today, there is nothing we can do when our TV sets go wrong. We must replace the whole set. So, when technology advances even further, it will be difficult to determine the nature of vocational guidance. I have no good ideas on this matter. I think what the schoolteachers can do will be limited to a basic area of general knowledge.

Chairman

I think it is time. Now, there were some ideas on the F-Test for adults. In fact, I submitted a tentative plan in the last, 4th meeting. This time, I think this has been handed out to you. I hope you will have a look at it. This plan assumes three years' experience as the standard, because both secondary and high schools last three years.

Now, there are four tests: Those for secondary and high schools, one for people over 18 years of age who have not graduated from high schools, and who I think are very small in number, and another for people in general. The point was made that elderly people today do not do any work. This is distressing. So this test will be applied to those people who have retired from their jobs and have nothing new to do.

This test will also be useful, I think, when people, currently working, would like to change their jobs. I submitted this tentative plan in the hope of receiving guidance and instructions from you, and I look forward to hearing them. We have five more minutes. Any comments, please?

Mr. Hoxter

Before the session closes, I feel I want to express our thanks to the co-chairman for today's session, because this was a very lengthy and complicated discussion lasting the whole day.

I'd just like to express all our gratitude and appreciation to Dr. Kobayashi for his chairmanship.

(NOV. 4)

SESSION Ⅶ

Co-Chairman

Shall we start?

Before we start our session, I'd like to ask Dr. Tatur to take the floor. He wants to clarify the meaning of the terms which he used yesterday.

Dr. Tatur

In my presentation yesterday I used the expression "Olympics for each academic subject", relating to vocational guidance, and now I would like to explain briefly what I meant by this. While I have used the word Olympics, this not Olympics as the term is customarily employed internationally. Instead, it is used to refer to physics Olympics, chemistry Olympics and mathematics Olympics.

For example, in the case of the mathematics Olympics, representatives at various levels are put forward by the schools and they pit their knowledge against each other. Then, the winners of the mathematics Olympics at the highest level acquire the right to be admitted to any university in the Soviet Union on a preferential basis, without taking the entrance examinations. This is what is meant here by Olympics.

Moreover, in the various fields of sports also there are these kinds of Olympics. The victors and those who have achieved a degree of excellence can enter the corresponding sports universities and become the future sports teachers. Thank you for your attention.

Co-Chairman

Thank you.

We'd like to continue our discussion.

Dr. Marland

It may help to clarify this.

I was puzzled about that term, and I wondered about developing—through vocational guidance—people for these Olympic games. It appears I misunderstood, through the translation, what he was saying. So I wrote him a note this morning so it could be translated for him before the meeting, saying would he please clarify that. And it's not the Olympic games, as we think of them—as athletic events—but the Olympiad of scholarship, which I warmly agree with and support.

Co-Chairman

Okay. Thank you Dr. Tatur for that clarification.

Regarding the topics we have discussed, do you have any specific questions, or any concrete comments?

We have discussed on many topics. We have discussed vocational guidance and educational reforms. We have discussed vocational guidance and technological advancement, a very important topic. Then, we spoke on vocational guidance and the aging population.

If you don't have any questions or comments...

Okay, just a second.

Regarding the aging population, do you have any specific suggestions? Some of us suggested that the F-Test could be used in connection with it. If such a possibility exists, it should perhaps be explored. That is my initial comment.

And now, we have Mr. Weingart and Dr. Inaba. Are there any other questions?

Then, we shall start our discussion with Mr. Weingart.

Mr. Weingart

As various panelists were making their presentations, I jotted down notes and questions. So, I have notes relating to a number of areas. Let me just start with one.

Perhaps an explanation, or a clarification, or an amplification will help us.

This is Dr. Pellerano. In your presentation, you spoke about vocational guidance counselors being public counselors. I think you used that expression to mean that they dealt with the public in general. Was I correct in that?

Co-Chairman

Would you clarify this?

Dr. Pellerano

Let us look at how orientation service is offered in France. Orientation counselors are part-time employees at secondary educational institutions, colleges and universities. They visit schools once in a while and give a variety of psychological tests and evaluations. They are visiting, part-time counselors. When they are not at school, they work at independent organizations known as orientation centers, which are open to the general public.

Anybody may come to the centers to receive counseling and discuss problems with counselors. People sometimes need employment information; they may consider changing jobs, they may need help in getting employment, or they may even wish to discuss problems concerning their private lives. The latter type problems may be discussed at orientation centers; however, they should be linked to jobs in some form or other.

As we have seen, anybody has access to orientation centers. Counselors visit schools and also meet people at orientation centers. A growing number of old people are recently visiting these orientation centers in order to receive employment guidance. In addition to employment guidance, counselors often encounter questions from old people such as how they should live in the future. I hope I have answered your question.

Thank you very much.

Mr. Weingart

Just one further clarification: Are these counselors employees of the school system, or of some other branch of the government?

Dr. Pellerano

Psychologists, economists, sociologists and experts on labor problems, rather than school teachers, are more likely to become counselors. Needless to say, they all have university diplomas. They have received some practical training after finishing college education, having done supplementary research in subjects like psychological analysis or human potentiality. Although supervised by the Ministry of National Education, counselors continue research in constant association with the Employment Bureau.

While at school, counselors take part in counseling classes, and psychologically evaluate students, in cooperation with other teachers. Counselors visit secondary schools and high schools, both private and public.

Co-Chairman

Okay, thank you.

Dr. Dupont, do you have any comment? Are your comments related?

Dr. Dupont

Yes. A brief note in answer to Mr. Weingart.

In Switzerland, we have approximately the same system as in France, but with the difference that counseling is essentially for youth and young adults, but not for old people. Old people do not come for counseling.

We also have specific training programs for counselors at universities. And counselors are not teachers, but a special corporation counselor, and vocational counselor. At the university level, counselors are often psychologists, specialized in vocational guidance.

Mr. Weingart

Just one sentence.

As a matter of fact, in New Yok City, the bureau that provides counseling used to be called the Bureau of Educational and Vocational Guidance. That used to be the name, so that was the broad title, broad umbrella under which counseling fell—but, of course, that was only for students.

Thank you very much.

Co-Chairman

And now, I'd like to conclude this.

We have so many questions and so many things to do.

But before we proceed, I'd like to remind the audience that they are invited to present questions to us. So, how are we going to do this?

I have been informed that the audience know, and that they are in the process of presenting their questions.

Okay, with this understanding, I would like to proceed.

So, the next speaker is Dr. Inaba.

Dr. Inaba

Yes, I just have a question of clarification for Dr. Dupont.

On the first day, you presented us with some data on your testing of the Swiss Army. I'd like to know, how was the hierarchy developed? Was it according to the mental abilities of people in the occupation, or the perceived mental abilities of the testees? Can you clarify that for me?

Dr. Dupont

Yes, in the Swiss Army, we make non-verbal tests of intellectual ability, and we notice that there are differences between professional groups. For example, technical and scientific professions are a little better at the same training levels than, for example, business, legal & political professions and so forth. And each year a survey is conducted, or a pedagogical test. But this is not for the sake of orientation of army manpower. Unlike in America, its purpose is not to select officers or specialists, but more means of acquiring information for the government. The government has an opportunity through the army, to get an idea about the mentalities, attitudes and capacities of young people. Though participants in the survey remain anonymous, we control the structure of the test, the item analysis, the reliability. Thus we ensure that the soldier gives true and serious answers.

Have I...

Dr. Inaba

Yes, you've clarified it for me, thank you.

Dr. Dupont

If possible we make a bigger survey not only with intellectual potential, but also with interests, values, perhaps also vocational and avocational interests, to have a larger picture of presentation of soldiers.

Dr. Inaba

It seems quite strange to me that as one of the top categories, warehousemen were viewed as being high status as compared to machinists and plumbers.

Co-Chairman

Okay. Thank you.

Dr. Dupont, are you finished? Do you have any other comments on this?

Dr. Dupont

It is difficult to interpret the results in simple terms, but we appear to have approximately the same hierarchy as in America. For example, building is not as good as mechanics, and mechanics is not at the same level as electronics. At the top level we have electronics jobs and students in university. And differences among students, that also exist are classified: Students in scientific fields perform better than those in law or political science, and so forth, only because the test is more oriented toward the sciences rather than law and politics. For law and politics perhaps pedagogical tests are more appropriate.

But my job in this research concerned only this test.

Dr. Inaba

Fine, thank you.

Co-Chairman

Okay, thank you.

Mr. Hoxter.

Mr. Hoxter

Thank you.

Guidance and counseling needs have changed very considerably over the past ten years. Guidance counselors of the future will have to undertake quite a different job from those of ten or twenty years ago. And that means that unless the professionals in the field are willing to accept conversion training for their new jobs, new tasks, they will be out of the field, and other people will take over in that field.

And the two areas which are most affected by this change are the needs of the unemployed, and adults. If guidance and counseling services will not provide for those groups, others will do so.

Thank you.

Co-Chairman

Okay, thank you.

Dr. Marland.

Dr. Marland

Continuing the subject of the elderly and services to the eld rly, I was impressed with Dr. Pellerano's observation yesterday that perhaps a great many of the elderly, yes, indeed, need counseling, but they may not want or need vocational counseling. That may not be their principal interest at a given moment.

And I just wonder if there is a little linkage here in the deliberations of this meeting. We heard the possibilities of increasing the audience for the F-Test, to include adults. We heard experiences—experimental, to be sure, so far—in Hawaii, where the F-Test is being used with an aging population.

But I wonder whether—and I'm listening now to Dr. Dupont, as well as Pellerano, and Mr. Hoxter—if there isn't a signal here for us to consider; that, if the F-Test, dealing principally with vocational guidance matters, were to be modified in such a way as to include other interests beyond vocation for the aging individual. Things come to mind, such as in the centers that Dr. Pellerano described, but couched in an instrument that would give sys-

tematic treatment and opportunities for analysis to these subjects. For example, health: what are the health resources for the aging in a given community? Family relations—we've learned that some aging individuals feel rejected by their families, by the young; we heard that from Dr. Röhrs. What about legal problems? The aged, for the first time, may be confronting problems about the law: mortgages, debts, land properties, real estate, insurance problems financial problems. What are the resources for the elderly beyond Social Security? Is there a need for a job, or isn't there, and if so, again, back to the vocational implications of the instrument then, to consider ways for counseling on career change; new opportunities for learning and work.

So, I think that if we are to consider services to the elderly, we should raise our sights and broaden our scopes, if, indeed, the F-Test is to have a place in the adult environment; to broaden the content to deal with other things in which the elderly might be served.

Co-Chairman

Okay. Thank you.

This is related to my comment, and Dr. Fukuyama the other day commented on this.

Chairman

You have given an excellent explanation, and of course I am of the same opinion. As I said yesterday, what you have just indicated is that which is used provisionally for the elders, and I find it an extremely good explanation. By adding this kind of thing, I think it will be allowed to develop further, and I would like to thank you very much.

Co-Chairman

I appreciate the intention, but I'd like to see more practical aspects.

Dr. Inaba, do you think it's feasible to expand the test?

Dr. Inaba

I'm sure, and I think in the past conference, Dr. Fukuyama already started revising the forms used in the F-Test in order that it be applicable to the adult population. So, I think it's just a matter of revision of some of the items in the test, or some of the requirements of the test, to make it applicable to the adult population.

Co-Chairman

Thank you.

And the others, are there any other comments on this?

Okay, then Dr. Christ-Janer.

Dr. Christ-Janer

As we relate this discussion to the aging population, it occurs to me that perhaps the use of the word 'test' is automatically considered to be a psychological barrier. If you're an older person, you may resist the idea of taking a test, where if it is label as a self-assessment instrument, it involves you in a different way, because a test implies you can fail, and I take you cannot really fail the Fukuyama F-Test, or the profile. You discover yourself along the way, through a very logical process. And it is the process that holds the key to the whole exercise of the F-Test.

But I just throw in that one word. Maybe in the schools you can get away with that, but I think as you get to older populations, the word 'test' just will turn a lot of people off.

Co-Chairman

I should remind you that it has been renamed the Fukuyama Profile.

Also, I'd like to ask Dr. Nishida to comment on the feasibility of such an undertaking.

I'm not very familiar with the scoring, but you have certain items, and these items are scored, right?

Will you expand on that? What are the problems?

Dr. Nishida

As Dr. Christ-Janer has said, when the word 'test' is used with the elders, they will be wary, and I think this is a reasonable opinion. The elders themselves should attempt to assimilate and analyze what thoughts they have, and in this light would not the name 'Fukuyama Profile' be more fitting? I think it is excellent.

Co-Chairman

I have to interrupt you. I realize that, but I'd like to know, is it physically possible?

Dr. Inaba, could you answer this?

Dr. Inaba

The mere fact that Ms. Kudo already gave the test to adults proves that it's feasible, with a few changes that she made on her own.

Co-Chairman

All right, then Dr. Hoyt.

Just a second.

But Dr. Marland, Dr. Inaba, is suggesting to expand the scope. My question is, is it feasible to expand the scope?

Dr. Inaba

By scope, do you mean to apply it to adult populations?

Co-Chairman

Yes.

Dr. Inaba

Oh, yes. As I said, Ms. Kudo already has proven that.

Co-Chairman

Okay, then Dr. Hoyt.

Dr. Hoyt

I would like to comment briefly on this problem, and two of the others that have been raised this morning.

I'm very intrigued with Dr. Pellerano's discussion of the arrangement for career counseling in France, with the curriculum counselors in the schools as opposed to the career counselors in the community, who come into the schools on occasion.

A large part of my efforts over the recent years in career education have been devoted to trying to make clearer the relationships between education and work. That is, when we talk about curriculum decision, we also talk about the implications for career decisions. And when we talk about career decisions, career choices, we talk about educational requirements to engage in those.

So, I like to think of the career counselor as being capable of working in both areas. Now, whether he is employed in the school system, or in the broader community, is not a major concern. And we have them employed both ways. It is the capability of dealing with both topics for the individual that is of concern.

I don't want to go along, although I would welcome responses, but let me go now to the question of Mr. Hoxter's suggestion that career counselors will have to change very greatly in the next ten to twenty years because of the need to serve unemployed, structurally displaced workers, as well as temporarily displaced workers, and the aging population.

I think there is no doubt, that the process of career development will, for most persons, have to be repeated several times during the life span. And that process includes career awareness, career exploration, career planning, career decision making, career preparation, career entry, and progression.

This is why I was very intrigued yesterday with the description of the operations of Ashiya University, with the elementary school, the middle school, the high school program preceding the university program. I believe this is the way to go. You must start career guidance, as I see it, for life span. Kindergarten is late to begin. Kindergarten is very late to begin; this should begin with the parents in the home before kindergarten.

But what we teach in the elementary, junior high schools, and senior high schools, are skills in career development. We teach how to become aware of career opportunities. How to explore those that are open. How to make career decisions. These are teachable things that should be taught to every youth in the kindergarten through high school age range, for use later on.

This is what we mean by general—I use the term general employability/adaptability/promotability skills. Not just how you get in, but how you move up. And these skills have to be taught; and counselors have to know how to do this. And I think Mr. Hoxter is right on target. We'll need big changes in today's counselors.

Co-Chairman

Thank you.

Dr. Pellerano.

Dr. Pellerano

Dr. Hoyt raised the question "who pays for the education of these counselors?" Counselors in France are not directly related to school education and they give guidance to all the people living in a community—children, adults and old people. That is the general concept of guidance. It covers a whole community. As a matter of course, counselors are legally authorized to visit higher education facilities to give guidance.

The Ministry of National Education pays expenses for counselors. At present, a good deal comes from the state, though it may probably come from regional communities in the future. Financially speaking, government agencies such as the Ministry of the Economy, Finance and Budget, the Labor Ministry and the Ministry of Employment, in addition to the Ministry of National Education, are jointly financing educational programs for counselors.

As for information-related aspects, private companies or business groups are also taking part to extend financial assistance.

As we have seen, financial reorganization

is under way. But it is definite that counselors belong to organizations which are independent of any particular school or other facilities, though counselors have the right to visit schools and other places to give guidance as required.

Co-Chairman

Thank you.

Ms. Kudo.

Ms. Kudo

Though my point bears on something brought up a while ago, I would like to respond to Dr. Marland's suggestion, because we've taken the seventies, retirees, through the F-Test. There is no question that it is adaptable to any group, because it is a process that we are putting into place.

On the other hand, Dr. Marland is also suggesting that we should find out what the needs of our adults, or retirees, are, and fulfill those more than vocational guidance itself. I would question trying to resolve the problems of all retirees through one instrument, as we are doing now. It is a very lengthy instrument as it is, comprising of two parts A & B. It is basic to a lot of needs identified in the survey we' ve done. Though 105 respondants were involved in the survey we were however, talking in terms of the 83,000 senior citizens we have in the state. So, the findings are very specific, and Dr. Marland is right, they're talking about high medical cost, limited affordable housing, limited in-home services, these being the most important ones mentioned. The others that are important are limited income supplement for low-income elderly, limited or costly health promotion services, and limited transportation. Those have been identified, and if you go to any community there'll probably be something else at the top, but basically those are the kinds of things that the elderly are worried about.

The point I'm making is that we should find out what the needs are, and attempt to meet them, but not expect vocational guidance to do it all together. There is need for other kinds of guidance, and thus I think we need more than just vocational guidance people to help the elderly in our community. There are other agencies, other institutions and other individuals that are prepared to work with us to help the needy, or the elderly.

And I think we need to develop these collaborations, cooperative, or whatever, and not expect one instrument to come up with everything that the elderly need.

I'm not disagreeing with Dr. Marland, I'm just making a point.

Dr. Marland

May I make a quick response to that?

I understand Mrs. Kudo's views on this, and I am in accord with them; one instrument can't be all things to all people. But, I'm thinking of the institutional mechanics, the arrangements, the facilities. Here you have an aging person, probably not too secure in moving about by himself or herself, getting through these civic resources of one kind or another, and you have an occasion to assemble the individual to administer the vocational guidance instrument.

Now, I'm thinking of the fact that here you have an institution doing it. You've already, Ms. Kudo, identified the other concerns of the aging: health, transportation, finances.

Shouldn't we give thought to having a comprehensive place, and maybe other instruments, but a place where those individuals can be served.

I'm thinking, again I'm stimulated by Dr. Pellerano's account of the centers for counseling in France, and I think I'm just saying a center for counseling, possibly fostered by the school. You do have the space, you have the rooms, you have the access, but have these other services that would be able to be drawn upon by the elderly within the same environment at the same time.

Co-Chairman

Is your comment related to it?

Ms. Kudo

As I said, and I ended by saying, that I'm not in conflict with what Dr. Marland is saying, but the reason that I did not see it as something to move toward is because in Hawaii, we do have a network for servicing all seniors and they're called community centers. They do come together for recreation. Some of them need food, and they're served food there. They have health services available, or referral centers, so that they can go to those. So, that network is very well established through the state under the commission on aging, and the counties that have contracts with the state.

So, in light of this, I didn't see a need for developing. But, certainly, if a community does not have this kind of a center for these kinds of multiple services, I would say, yes,

that would take priority.

Co-Chairman

Thank you.

Ms. Barney.

Ms. Barney

Yes, I suppose, in a way, this is a post-script to some of Ms. Kudo's comments, but I'd like to say that the word 'test' may not be intimidating only to the grown-ups, or the aged. I think that students as well often do not like that term. And this is why in Hawaii we talk about the so-called F-Test as the Fukuyama Profile, because, indeed, it is a profile.

On the second point. I think that Dr. Marland's point about the potential of an instrument similar to the Fukuyama Profile, is—we would all agree true. I would like to say that I think we need to focus in on the process inherent in that instrument, and as we look ahead, starting from the self, to the needs, and to the possible options that an individual would need to consider, that we use the current Fukuyama Profile as a model and see what we can come up with that would be appropriate and applicable for the elderly.

Co-Chairman

Okay, thank you.

Ms. Rangel.

Ms. Rangel

Thank you.

I'd just like to respond to the comment that was made previously about counselors needing to respond to the changing needs of the unemployed and adults.

May I just say that in Britain we have already started to do this, albeit only to a small extent. As far as I know, about six educational authorities have set up units to deal specifically with the needs of adults, and Birmingham is one of these. We have, in fact, a unit called the Employment and Training Advisory Service, which deals with those employed and unemployed adults, and provides a service not just for counseling, but for negotiating training to meet the needs of our times.

Thank you.

Co-Chairman

Thank you.

Mr. Weingart.

Mr. Weingart

I wanted to get back to the F-Test, if that is all right with you, Dr. Kobayashi.

Co-Chairman

Yes, it is quite all right.

Mr. Weingart

All right.

Two of the major areas that concern this group here today are the aged and the use of the F-Test. And now we've been talking about and exploring possibilities of amalgamating the two; of joining the F-Test with the aged.

I proposed that also in my paper. It seems to me that what is needed here,—and this is a partial response to the question posed to Dr. Nishida,—is an overall review of this instrument. For example, we've mentioned the fact that the size of the instrument can be intimidating; it can be. I have it here; it's a long sheet with many, many questions. It may have to be truncated; it may have to be shortened somewhat.

The standard indexes which have been derived, have been derived based on junior high school students. Obviously, they would be of little value when we get responses from the aged. So, there's another area for revision.

The types of questions may have to be reworded—personality aspects. One from talks of the tryouts; we're not talking about tryouts anymore, these are experiences, we're talking about the experiential background of the elderly.

Also, I think the school is not the place to use the F-Test in dealing with the aged and the elderly. It seems to me that its use can be more readily initiated in some of our larger corporations, which set up pre-retirement counseling. Many of these companies have offices and divisions that deal with people who are about to retire, to help them in their retirement age. We want to see retirement as a truly rewarding experience, and possibly administration of the F-Test, the Fukuyama Profile, as revised to apply to the elderly, to the aged, to the mature individual, with those who are about to leave the world of work, so that we can pinpoint areas of interest, areas of expertise, and offer leads to these individuals as they leave the world of work and enter the golden age of retirement. They will know which paths to traverse, where to go. It seems to me that's the place to initiate the use of the F-Test with the aged.

Co-Chairman

Thank you.

Dr. Tatur, and then who else.

Then, I'll ask Dr. Tatur to speak first.

Dr. Tatur

While I agree with Dr. Hoyt, I think the implication for vocational guidance is that it should be provided from when one is very young, that is from the kindergarten stage, to the educational institutions beyond that, then the universities and up to the final period of his life.

Just now a program for higher education is in the process of being drawn up. What I have here is this prepared program, and what is written here is the program for vocational guidance at higher educational institutions.

For those who graduate from higher educational institutions, vocational guidance does not stop there. The graduates start their jobs, then get various qualifications, and their acquisition of such qualifications from the lower to higher levels is followed up. If assistance is necessary, it is given, and all evaluations obtained at their place of work occupation are followed up. Therefore, in this sense, the vocational guidance applied in Japan is broader in scope.

The items are written down here. It is written that for vocational guidance the educational element is extremely strong, and that when a person has a job within the society after graduation, he must enhance his work to higher degrees as a member of the society.

For some time the problems of the young pupils and the elders have been discussed. However, various activities take place in the period between being a young pupil and an elderly person. Twenty years ago people did not change their occupations much, so it was sufficient to provide vocational guidance for schoolchildren.

According to the data in Japan, 30% of the workers now change their occupations. For those people who change their occupations vocational guidance is necessary on each occasion, and providing them with qualifications is also essential.

In this sense I think that the Fukuyama Profile passes through all these periods and that the idea of the Fukuyama Profile must always form the basis. What is becoming particularly important is that, the person should change his occupations at the right time before he has used up all his energies in that one job, and it is essential that he is given vocational guidance at that time.

I would like to say the following in conclusion. How about creating a Fukuyama Profile dictionary in the names of all the participants in this International Vocational Guidance Conference? What I mean is, what with the various specialist terms, how about producing precise definitions for them? I on the Soviet side can discuss the concept of the specialist terms relating to the Fukuyama Profile as understood. And how about the same being done for every country? Thank you.

Co-Chairman

That is a very good proposal.

Are there any comments on this?

I think we started discussing the feasibility of using the F-Test.

Mr. Weingart

Now, first of all, I think most of us here know a good deal about the F-Test and the Fukuyama Profile. I can just speak for myself. Now, I have administered it to over 8,000 students in twenty schools just this last year, and eighteen schools two years ago, and I have thousands of responses. I think, personally, I'm familiar with the profile, and I recognize that it can be readily adapted. I mean, it takes thought, and it takes a lot of consideration. We know, I think those of us here, have a very good understanding of what the needs...

Co-Chairman

Mr. Weingart, I have to interrupt you.

I fully understand it is technically feasible, but how about the administrative feasibility?

Mr. Weingart

Oh, yes. Once the instrument is modified to be used with the aged, I suggest that we start small with some large corporations—there are many in the United States and in New York—which provide pre-retirement counseling, and that, as part of the pre-retirement counseling, a selected number of people be given the Fukuyama Profile, and that in the hands of a counselor, the results can help that person live a more fulfilling life in retirement.

I think it is worth trying.

Co-Chairman

Thank you.

I think that is a very interesting suggestion.

Christ, yesterday, you were talking about corporate education. Am I right?

Dr. Christ-Janer

Yes.

Chairman

I regret to say that as 30 minutes of the time has been given to the audience, I would ask that the members of the panel give way to the audience here.

So, what has been raised by the members of the audience is firstly a question I shall put to Dr. Marland. "If vocational guidance is to be a permanent subject at universities, how can we secure full-time professors? Given the present situation, is it not a fact that there is no other way but to engage people in business and the like as part-time lecturers? We would like to know about this." Dr. Marland please.

Dr. Marland

My experience is that of an elementary and secondary administrator, more than higher education, so I will respond briefly, and in general terms to the question which had been sent up to me earlier, and I have it here, too.

But, I'm going to suggest that I will pass this question to Dr. Christ-Janer, who is more familiar than I am with higher education.

And if I can restate the question to be sure I understand it: How do we go about training vocational guidance counselors in our colleges and universities? And rather than rely on, as this questioner says, businessmen or part time people, what's the system?

I can tell you briefly that in America the training of guidance counselors, including vocational counselors, falls broadly under the mantle of the department of psychology, or psychologists in the department of education. I'm sitting next to one such individuals; he is one of those animals who is called a professor of counseling. And perhaps Dr. Hoyt, after Dr. Christ-Janer, at least will comment as well.

It is a fairly structured system. There are criteria for certification to become a counselor in America. Those criteria are established by state institutions and by the professional organizations of counselors, which are generally compatible.

Now, with that as a general response, Dr. Christ-Janer, do you want to take it from there?

Dr. Christ-Janer

Yes, thank you very much, Dr. Marland.

I think you touched on one very important point, and that is that we already have sources for full-time faculty members who are trained in the area of career education or vocational guidance. I believe that Dr. Hoyt has had about 1,500 graduates on his own programs; these are graduate programs, and there are similar programs across the country.

However, it has not been particularly well received at the higher education level, where these people would come out of his program and then go to colleges and universities and there teach teachers who are going out into the field. Now, I would say that the question seemed to be how you can secure these professors who would come through such programs and then go to other colleges where they would train teachers to be counselors and career education experts.

Well, it seems to me that the first thing that has to be done is that the college or university has to make a commitment. There has to be a lot of commitments along the line. By this I mean, what status does the vocational guidance teacher, or career guidance teacher, have within the structure? If people don't see status there, they won't go into those careers. Are the salary ranges for the career, or vocational guidance personnel, equal to those of other disciplines? What about the promotion? Are they promoted in the same way? Are they given a tenure track in the same way? If these four areas are seen by educators, or young educators, in a positive light, then they'll know that the commitment to career education is serious, and I think you will find that the source will come up to fulfill these needs. If people know that universities and colleges, and then secondary schools are really serious about vocational guidance, you're going to have enough people come through the system to provide leadership, and particularly at the professorial level.

I'll turn it to Dr. Hoyt to follow that up.

Dr. Hoyt

I think it is, might be at least, appropriate to comment briefly on the process of counselor education in the United States, simply for information purposes.

I would begin by saying that counselor education in the United States is graduate education. It is not done anymore at the undergraduate, baccalaureate level. You get a bachelor's degree in something, and then enter graduate school to get advanced degrees in counseling at the master's level, the specialist level, and the Ph. D. level, depending on where one wants to work.

The typical counselor in a school setting has a master's or a specialist degree. The typical counselor in the college and university setting is a Ph. D. in counseling.

There are specialties within departments of counseling, so that some counselors become clinical counselors, some become career counselors, some become specialists in substance abuse counseling, some specialists now in sex counseling, and all of these other areas. So, that career counselors are only one kind of counselor.

My students become career counselors, because that is what I teach. The department of counselor education, in which I work, has many professors who do not get at all involved in career counseling; they are interested in other kinds of counseling, and other aspects of counseling. The department of counselor education, within the college of education, is one of several departments. There is a department of counselor education, department of curriculum and instruction, department of administration, department of psychological foundation—that's educational psychology and measurement, statistics, and so forth.

Chairman

This is a problem with which I am involved. "In Japan, in order to become a university teacher, there is an investigation takes place. So when a university is newly created, if a person has not been through this kind of investigation, he cannot become a university teacher. This being the case, successful negotiation of such an inquiry is imperative.

Another problem is that, in Japan, in order to become a university teacher, as was said for America earlier, the person must at least possess a master's degree. But in practically all cases, he cannot be used unless he has a doctorate, since doctors have been very much on the increase.

And in Japan the only college actually offering a master's degree in vocational guidance is Ashiya University. The graduate school at Ashiya University only. There is no vocational guidance at other universities. Education does not attain to vocational guidance. As for the doctor's course at graduate schools also, our graduate school has a doctoral course for vocational guidance. It is not 'vocational guidance.' It is 'vocational guidance study.' Vocational guidance is one method or formula. It is a study. Therefore, there is the chair for the doctor's course. I beg to differ, but this chair does not exist at Tokyo University either; it only exists at Ashiya University. Given this, I think that this international conference has become the best in the world.

We shall now move to the next problem, and I shall address it to Dr. Hoyt. In huge industries, departments are so specialized that even the head does not know what the other departments are manufacturing, and education is according to training in departmental units. For such specialist education, professors from university who can make a contribution are extremely few. The problem is that they can only offer training for basic learning, technology and application capabilities. What is the situation in America regarding this aspect?

Dr. Hoyt

I'll be glad to respond.

The situation in the United States is similar in many ways; that is, the corporate training for specific duties in specific job departments is the most common kind of training.

However, the problem of increasing worker productivity demands that each worker have a sense of the importance of his or her job to the total enterprise. Therefore, part of the training is not on the specifics of the skill, but rather on the importance of the work. Unless the worker can see clearly that what he or she is doing is important, he will not be as motivated to do it well. The goal is to motivate each worker to do his work to the best possible extent. And in order to get that kind of motivation, the work must be meaningful to the worker. The worker must see why it is that he's being paid, and how important it is that he's doing it. Whatever the work, the importance of the work must be recognized by the worker. That, too, is part of the training. And I say those two parts go together. Granted, 90% of it is the skill training, but the 10% that shows the importance of the work is very important to productivity.

I hope that helps.

Dr. Christ-Janer

Because this was a part of the paper that I presented yesterday concerning the magnitude of a corporate education going on, where indeed many of these corporations offer academic degrees, it seems to me the absence of our presence in that whole educational system should

really be noticed, for you're talking about millions of people who are going through an educational system in which they do not have in significant number of the kind guidance programs that come out the sorts of discussions that we've had, and what we have in higher education.

So, I guess what I'm suggesting is that somehow we need to make a bridge to business and industry. Those conducting these educational programs, should tell them about us and why this kind of guidance program is important, because it is true, they educate very narrowly. They may be educating me in a area where I shouldn't be, and I've got to have some system that gets me over into an area, through guidance counseling, where I can be a better employee, rather than have them assign me to a particular program.

So, I would underscore the importance of vocational guidance in this whole world of business education.

Dr. Hoyt

May I add, Mr. Chairman, that the problem is in a conceptual sense: industry has to be concerned about finding the best person for any job. It is also to the benefit of industry if they find the best job for every person. Done in an absolutely correct manner, these two become the theme. That's the goal.

Co-Chairman

Do you have any other comments on these questions?

Dr. Christ-Janer

But, I do think, that I would really underscore that before people enter into careers in guidance, they have to sense that education takes those positions really seriously, and they're not the first ones to get cut; they do have status, they do have a salary—sort of equal salary breaks—that they do have promotion within it. The people going into counseling have to know that the institutions are serious, both at the university level, and at the secondary level. And until they see that, they just realize that they're the first ones to get fired, and so why go into that. And so, you lose the best possible people that way.

Co-Chairman

Okay.

Dr. Dupont.

Dr. Dupont

In Switzerland we have a training system; two years of graduate training at university, two years background training in psychology and two years more in vocational choice, interview, statistics, and so on, perhaps like the system Dr. Hoyt spoke of.

But, we also have contact with firms, with industry. The role of training is more important. To obtain experience in industry is always possible after training at the university level. It is necessary for the would-be counsellor to receive the university level training before engaging too quickly in fieldwork.

Co-Chairman

How about the audience? Would you like to respond to these comments? Or any new comments?

Do you have any other questions?

Then, I don't think we have any questions from the audience, so...

Audience

I understand that the objective of vocational guidance is to develop the ability to choose occupations in which students can utilize fully their aptitudes and skills. If the F-Test is used without understanding this fundamental concept, the F-Test will reveal only the limited aspects such as what the students can do in what fields. Please explain the difference between the F-Test and other tests.

Chairman

I shall state it simply. One point of my test concerned education. Each person is a human being. The human being who is born must be of use, and this is a serious problem. Firstly, it is obvious that for the development of society, efficiency must be raised not only in the economy, but in various aspects of society. For efficiency to be raised, people suited to the jobs where this is being attempted are necessary. This is the problem.

Therefore, one aim of my test is that it should be instrumental in educating each and every human being sufficiently, or, to express it from the side of those using the test, if they used the human being sufficiently educated thus, production would be raised. Therefore, while suspending a platform to cover both education and economy, it is my view that there are special phenomena which emerge by a synthesis of the educational and economic phenomena.

As you said just now, as for making use of the test, this is an issue to be discussed. The theory underlying it is as I have said.

Regarding the manner of use, it has already been employed a lot, and while this offers us some insights, we have no time for this now, and shall postpone it until some future occasion.

The special phenomena, a synthesis of the educational and economic phenomena, education and the economy, is something I believe. I would like you to listen to this very carefully, and then it is necessary to bring out the most important aspect; human beings. How we regard the entity as an individual or socially? They are human beings involved in all social activities. Human beings come first and society follows. It is not the other way around. Therein is the relationship between human beings and society. Because the test has been well comprehended, I hope that there are no misunderstandings on this point. Finally, I apologize for this situation, I didn't intend to say anything since this is about my test.

We have now reached question time and I would like to close with your questions. After that I will hand over to the Co-Chairman.

Summarization

Co-Chairman

So, we move on to the next session.

It is very difficult to summarize the dialogue we have been involved in through this conference—a dialogue which is so rich in its content, and so extensive in its coverage. All I can do is to juxtapose the salient points covered at this conference and make my own comments regarding these points.

I think, Hoyt, Christ-Janer and Marland emphasized that vocational guidance has to be linked with the national economies. Am I correct? I think that linking vocational guidance to the economies is very important. Yet I don't think vocational guidance specialists have a very effective link with the economists. This I believe is a very serious defect in the conventional approach in providing vocational guidance, if I may say so.

If you want to refute me, you can do so. I shall willingly receive any refutations. If I don't like the refutation, however, I will just reject it, exercising the prerogative of the vice-chairman.

So, this is one of my observations.

The second point is that linking vocational guidance with the economy does not suffice, because the national economy is an integral part of the world economy. It is the world economy that is in control, rather than, the macro-economics of the nation-state.

Therefore, vocational guidance has to be linked with the world economy. And the world economy is not changing; it has changed. So, my question is, are you ready to cope with the changes in the world economy? These changes are irreversible, we cannot alter or divert them.

One of the significant changes brought about in the world economy is the change in the world food supply. The world food supply is going to be excessive. This is a new reality of the world economy. My question in this connection is very naive; how is vocational guidance going to deal with this new reality?

This change has very serious implications in many countries. In France, for instance, agriculture is a very important industry, but because the food supply is getting perpetually excessive, the agricultural sector has to be reduced. The resources have to be reallocated. Vocational guidance plays a important role in the process of this resource reallocation.

The same situation prevails in Japan. The world food supply is going to be perpetually excessive. If Japan is going to meet this reality, I think the resources have to be reallocated from the agricultural sector to the nonagricultural sector. I think this could be a challenge to those who engage in vocational guidance.

So, I am mentioning these aspects to emphasize my point: we should establish a very effective link, not only with your national economies, but with the world economy.

And the world food supply is going to continue at an exponential rate of growth. Again this is a reality. So, Dr. Inaba and many others said it is very difficult to make accurate occupational projections. I agree with that, but we could identify general trends. I think we should address ourselves to these recognized general trends.

Having a conference is very good, but on the other hand, what we would be doing between the conferences will be very important. So, as I mentioned before, I think we should strive to establish more effective cooperation among ourselves. I think you will share my views on this.

The conference started two days ago, and now the final hour is approaching. As I said, it is not an easy task to summarize our dialogue—a dialogue so rich in its content, and so extensive in its coverage. But, I think we have agreed that the totality of the educational process cannot be captured unless vocational guidance is made an integral part of education. This is a very general comment, but I think we had a general consensus on this. Do you agree?

Vocational guidance has to be infused into general education. "Infused into" was a phrase introduced by Ms. Kuritzkes. I think this suggestion is very plausible. And Marland,

Hoyt and Christ-Janer talked about the infusion between higher education and the world of work. Am I correct?

Another consensus was that the F-Test is a very useful, meaningful instrument. I'd like to note on this occasion that we all realized that this could be a very effective research instrument in enhancing the effectiveness of vocational guidance. Do I have your consensus on this? Dr. Zenke, you're listening very pensively?

Vocational guidance—maybe you could correct me, Dr. Inaba, if I'm wrong—is a practice to enhance the student's ability to determine his or her occupation. This concept, phrased as it is, is not operational.

The importance of the F-Test may lie in quantifying this abstract concept in terms of scores. Dr. Pellerano, please correct me if I am wrong. I understand these scores and indexes reflect the extent of the student's ability and the efficacy and effectiveness of the process involved in providing vocational guidance.

The F-Test has been conducted not only in the United States but also in many different countries—Switzerland, Dr. Dupont's country; France, Dr. Pellerano's,—I enjoyed being there very much when I was with UNESCO—then it was conducted in the Federal Republic of Germany, the Soviet Union, and England.

Given this accomplishment, I think at least two questions are relevant. One of these questions may be phrased as follows: Is it feasible to conduct a meaningful—I'd like to have your response, Dr. Zenke, on this—comparative study on the socres obtained from the F-Test conducted in many different countries? I think this could be a really important question, to which we might address ourselves.

The second question may be phrased as follows: What particular recommendations can we derive from such comparative studies on the findings obtained from F-Tests administered in these different countries?

As a person who played a role in implementing the F-project abroad, I was filled with very deep emotion when I heard the F-Test was conducted in New York. Ashiya tried to conduct it in New York about ten years ago, but it was very difficult to convince all those concerned, of the efficacy of the test. But now under the capable leadership of Mr. Weingart, the F-Test is regularly conducted in New York, and we're getting very useful findings. I'd like to give special credit to Mr. Weingart.

And finally, I'd like to thank Mr. Hyodo, Mr. Kawabata, and Mr. Yokoyama of Meijo University, and Professors Mizutani and Hakamada, Dr. Yamashita, and many others without their help, this conference could not have been as successful.

And also, I'd like to express appreciation to the interpreters who worked in the booth. The translation was excellent. The French translation was excellent, and I appreciated it very much.

So now the time has come for me to return the microphone to the distinguished Chairman, Dr. Fukuyama.

Chairman

I am honored to be able to say that this is the fifth meeting and I have found the conference this time extremely impressive. As I said at the beginning of my speech, while it is generally said that the world is now at peace, it is by no means so. There are all kinds of problems. The fact that human beings are unlike other living creatures, and why human beings are in the form that they are, that human beings only are different from other creatures, is the most important thing which we should concern. I think that the human being himself gives life to the things he himself has. He confers these upon the environs, and in turn, while occasionally making reciprocal contact between society and himself, gradually advances. This being so, we must consider in what way the creativity and actions of each and every person are necessary.

Earlier there was discussion about the economy. There was also discussion about technology. If we think about this, it is apparent that they are all products of man's creativity. They did not fall from heaven, nor did they spring from the earth. They are humanity's creations. I feel strongly that we must be conscious of how human beings are necessary in this respect.

And how will the new era develop? What will the 21st century be like? We perhaps feel that we ought not to use nuclear power, but if electricity is not generated by means of nuclear power, it will not be sufficient. This is a human problem. Whichever way you look at it, it is human. It is not scientific, nor is it technological. It is human. Human beings

are important. Recent times have been illuminated by what is known as humanity, but I think we must think deeply once more about man. What is man? In these times the most important thing is what man does. As I said earlier, it is necessary for us to think together about how we should maintain a good life in this world. We should confer with each other about this, and try to create a world in which we can live. The foundation for such a world requires us to seek out the abilities bestowed from heaven on each and every individual. Other matters are unimportant. Is it not a fact that the human being creates our world? Is not this human being treated miserably?

I thought that only Japanese students undergo a test war and succeed only if good grades are obtained. I have heard throughout these five conferences, that the whole world is showing similar tendencies. To delay in answering to this situation is to tolerate folly. Why must we suffer this. I think that it is an extremely pitiful individual who looks at books and nonchalantly fails to put into practice what he reads. This kind of human being does not amend the situation. Yet is it not true to say that this kind of human being is multiplying and that we are coming to an age where man will attempt to control others? Surely how various human beings have different abilities? Discovering this and creating a society in which everybody can live happily is necessary for the 21st century.

We have to study how this can be done. The first problem is to treat people considerately, and recognize the abilities possessed by each and every individual. Further, we must polish them up so to speak. This is not training. We must cultivate those important assets so that they will be ingrained, and seek a place where they can be applied. Having reached this point, perhaps it becomes a debate about the industrial structure. Vocational guidance is necessary in this respect.

Therefore, Dr. Marland has been greatly advocated. Vocational guidance is extremely broad. It is the most important pursuit of learning which must be born with the human being, be a part of his background. Of course, we need philosophy at the base. Philosophy is of no use as long as it remains mere thinking. Philosophy is what you yourself put into practice. You put it into practice while reflecting upon it. The philosophers of the past did this, and this is how I see it.

It is with regard to these things that I have asked everyone to consider vocational guidance at this conference. This is an era when the world is divided into two, the East and West. Both in the East and West, I obtained the cooperation of those represented at the time, and Dr. Marland here beside me and Dr. Yelyutin. Then for Japan, although he has returned home today, Dr. Kida worked hard on our behalf. I hope that you understand my feelings through the active discussion of the people present.

So, what shall we have for the next theme? I think it should be 'Vocational Guidance'. As I said at the start, I think it is necessary to think about it more deeply. So as I draw to a close today I suggest that the next theme be 'vocational guidance.' for it would be a useful theme for the new era and the advent of the 21st century, and I would be very happy to obtain everyone's approval. If you have any alternative suggestions, do please feel free to offer them. The role of vocational guidance in the 21st century is extremely important.

Co-Chairman

What is your reaction to this proposal?

Dr. Hoyt, do you have any comment.

Dr. Hoyt

I would be very much in favor of this direction, and hope that it can include your earlier remarks about how vocational guidance fits into the world economy, because that together, I think, would make a magnificent contribution to the 21st century, and in an international sense.

Co-Chairman

And in this connection, Christ's comment is very meaningful. He said that to establish a link, it might be useful to have a representative from the business world. And this possibility has to be considered.

Dr. Marland

Were you asking me for a comment, Mr. Co-Chairman?

The Co-Chairman, upon conclusion of his summary, asked whether he had covered all of the things that all of us thought should be recorded in that summary. While I agree with him, that it would be impossible to assemble all of the subtleties and nuances of this important dialogue, there was however one that the

Co-Chairman did not mention, and I would ask that it be considered in your summary, Co-Chairman. And it was something that I referred to on the first day. It was to call attention to the scholarly paper submitted by Dr. Röhrs from the University of Heidelberg. And that paper I urged to be reproduced in full in the record of this conference, and particularly, if it has not been translated into the other languages, that it be done, because it strikes at the very heart of things that I hear Dr. Fukuyama saying. It strikes at the very heart of the things that we've been saying over and over again at this conference. Namely—and the paper was cast in the context of technology and education—that his paper addressed the deep, disturbing question of the swiftly exploding technology of our world and the implications for the dehumanizing of people as a result. Now, the eloquence of that paper I've not begun to summarize, but I do urge that it be recorded in our minutes, Mr. Chairman, and that your summary make mention of it.

Co-Chairman

I was also impressed with that paper, which dealt with the harmonization of technical advance with human dignity. And I think on this Dr. Fukuyama···

I have been informed that it is our intention to publish this text in full, and it is going to be translated into Japanese and also in to English.

So, if you have any further comments on this proposal regarding the title for the next conference, we'd like to at least tentatively think that we shall be talking on this topic on the next occasion. Would that be agreeable to you?

Dr. Marland?

Dr. Marland

Would you repeat the title that you're suggesting?

Co-Chairman

Could you repeat your title?

Chairman

What I am trying to say is that I want to register the fact that the role of vocational guidance in the 21st century will be extremely important. I hope that we can bring it to guidance.

Co-Chairman

Could you repeat the English translation?

Okay, that's good.

Chairman

Vocational guidance will perform an extremely important role in the 21st century. "In the 21st century" should be emphasized. Not only the fact that vocational guidance is important. In the 21st century the role played by vocational guidance will be extremely important. How about putting it that way?

Co-Chairman

So, I think I can phrase the title, and if I am wrong, you may correct me.

The title will be, "The Significance of Vocational Guidance in the 21st Century."

Would that be agreeable?

Dr. Marland

Yes.

Dr. Hoyt

The nature and significance.

Co-Chairman

I'd like to revise that. The tentative title will be, "The Nature and Significance of Vocational Guidance in the 21st Century."

Would that be all right with you, Mr. Chairman?

Okay, Dr. Fukuyama agrees with this revision, Dr. Hoyt.

So, tentatively, it's going to be, "Nature and the Significance of Vocational Guidance in the 21st Century."

Thank you Mr. Chairman.

If you have any reactions to this, I'd like to have your reactions.

Dr. Zenke? Pellerano?

Mr. Hoxter, would you?

Mr. Hoxter

I think that the Co-Chairman made a very important point in two different ways.

Firstly, that vocational guidance will increasingly have to bear in mind the world economic situation. And because of the world economic situation, the vocational guidance counselor will be called upon more than ever to become an interpreter of the circumstances in which the particular region in which he works will be affected by the world economic situation. And that implies new skills and new knowledge in terms of such matters as forecasting, statistics, and interpretation of facts which may not have been included previously in the syllabus of his training.

In Britain, we have ten training centers, where men and women obtain their professional education. I believe that all those courses in-

volve matters relating to the economy of the world, and with special reference to Western society.

But, I think where we are not strong at all is in involving the workers, the trade unions, on the one hand, and the employers, on the other. And I cannot believe that in the 21st century, those two elements will not have a very major role to play. And I think that it's up to us to involve the two sides of industry, much more dynamically than we've done in the past. We've tended to work in isolation, and have not adequately built the bridges to the people who are, in fact, out there, and with whom the workers will have to integrate.

And I think that the next conference might give us an opportunity to involve trade unions and the employers in a systematic way.

Co-Chairman

So, this is along the lines suggested by Christ, and that proposal considered herewith, and in due time you will be notified.

Chairman

So we have just reached time. We shall hold the sixth International Vocational Guidance conference in two years time, and I would be grateful if you would consider by that time the various aspects mentioned, and give us your cooperation. I hope this proposal is acceptable. If so please indicate by your applause.

(applause)

Co-Chairman

So, I'd like to have your applause.

Chairman

Thank you. Finally, I wish to express my gratitude. Today all of the panelists have been really enthusiastic in their investigations, and I wish to thank them very much for this. I am also heartily grateful for the way those of you in the audience have listened so eagerly right to the end.

Should there be anything you wish to know please inquire through the office at Ashiya University. We are sufficiently prepared to provide you with answers.

By way of conclusion I would like to express our heartfelt gratitude to all those who have worked behind the scenes.

Thank you.

(applause)

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POSTSCRIPT

Shigekazu Fukuyama
Permanent Chairman
of
the International Conference on Vocational Guidance
January 21, 1987

I want to express my gratitude to all those concerned for their cooperation in conducting the Fifth International Conference on Vocational Guidance, without which this conference could not have been so successful.

The conference dealt with: "Educational reform in the respective countries and the related issues in vocational guidance", "The administration of the F-Test", "Technological innovation and vocational guidance", "The aging society and the role of vocational guidance". The last topic was discussed at the fourth conference too. Twenty two persons from seven countries, participated in the conference, and about 270 persons, scholars and teachers, audited.

One of the main points agreed upon at the conference was that superseding the traditional educational approach centered on liberal arts education, the new educational pursuit stressing on discovery and development of the students' natural talents gained predominating influence. And indispensability of the cooperation of the schools and industries was reemphasized. In this connection it was recognized that relevant school education may not be feasible unless the schools and the world of work are functionally related. The linking schools to firms and industries makes it feasible to offer relevant education, and trainings, and widen the students knowledge of the world of work—the basic element of the desired ability to determine the occupations. In this joint endeavor, however, the schools have to take the leadership. Particular emphasis was placed on schools' leadership. Vocational Guidance, career education is not effective unless not only vocational counselors but all the other teachers are engaged in it. There was general consensus that all the teachers should serve as vocational counselors. Career education has to be "infused" to general education. The opinion of the conference was that career education be incorporated into class work and extra curricular activities.

The program of the surveys based on F-Test, conducted in several selected countries, was reported. It was reaffirmed that F-Test is an efficacious research tool to evaluate the effectiveness of educational programs aiming at enha-

ncing vocational guidance. The results of the F-Test may be used as a base for improving the conventional approach in careeer education and vocational guidance. Several participants stated that it may be meaningful to conduct comparative studies on the F-Test results obtained in different countries, and it has been recognized that Ashiya University be instrumental in conducting such studies.

After the conference the workshop on the computerized use of F-Test was held, and a number of people participated in this workshop.

The surge of technological innovation sweeps our society, information is disfused liberally. Education should not be secluded from technological advancement. To innovate the educational process technologically, however, considerate, sufficient care has to be devoted to. An adequate criterion has to be established to judge the value of information to which students have access. The social and moral impact of technological advance has to be appraised from the educational point of view, and we have to make sure that technological advance be used in the direction of enhancing the students' career development. Many participants stressed this point.

As technological innovation does, the aging population brings about many serious problems. We discussed one of these problems: how we utilize the ability and accumulated experience of the old—particularly the retires. In the sense that the old has an obligation to transmit their wisdom to the young, the old are not unrelated with the world of work. The desire for working persists throughout our entirelife time. To live a worth while life, vocational guidance is indispensable through the life. I think we had general consensus on this position.

In the summarization it was emphasized that vocational guidance is rooted in both education and the economy. Vocational guidance has to be linked with the national economies and the world economy. At the sixth conference this aspect is going to be one of the major topics. The concept of vocational guidance should be the guiding principle of education in the twenty first century. This point was repeatedly stressed. The sixth conference will explore this point.